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ABSTRACT

The book contains 10 papers concerning programming for adolescents with behavioral disorders. Papers have the following titles and authors: "What You See Is Not Always What You Get" (Richard Neel); "Implications of the Relationship between Observational and Rating Scale Data for the Assessment of Behavioral Disorders" (Russell Skiba and Patrick O'Sullivan); "Correlates of Successful Mainstreaming of Behaviorally Disordered Adolescents" (Robert Gable et al.); "Technique and Rationale for Teaching Process Writing to Adolescents with Behavioral Disorders" (David Unruh); "A Peer-Mediated Program for Teaching Self-Management Strategies to Adolescents" (K. Richard Young et al.); "Integrating Vocational/Career Education into Special Education Programming for Emotionally Disturbed/Behaviorally Disordered Adolescents" (Paul Zionts); "Behavioral and Learning Characteristics of Childhood and Adolescent Depression: Implications for Special Educators" (John Maag and Robert Rutherford, Jr.); "Dealing with Adolescent Depression and Suicide: The Comprehensive Approach" (Charles Laufer and Cornelia Green); "Responding to the Threat of Adolescent Suicide" (Odette Bruneau); "Transdisciplinary Perspectives: A New Look at Educating Emotionally Disturbed Children" (Robert King). (DB)

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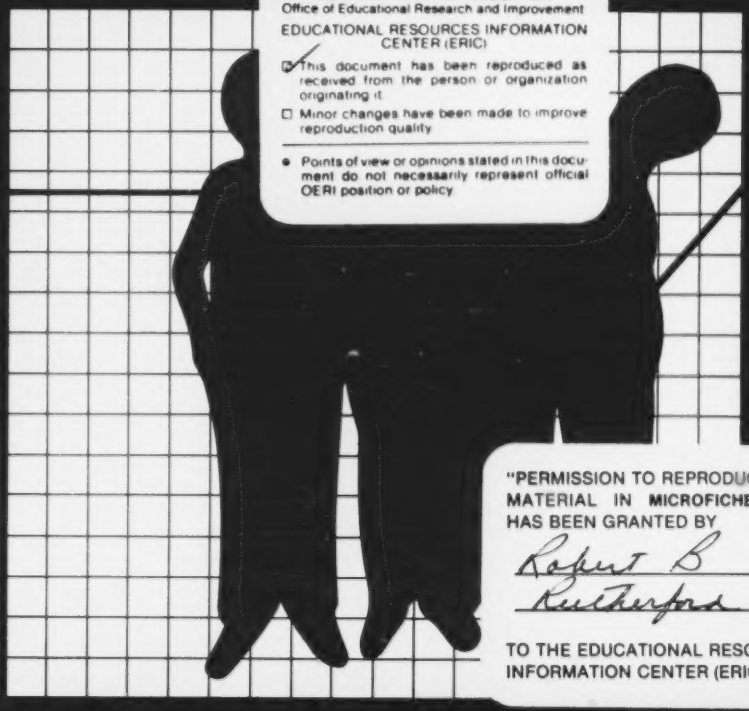

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Programming for Adolescents with Behavioral Disorders

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Preface

Over the past 20 years of continuous work with severely troubled youth, I have paused many times to reframe my perception of what is "normal". In the pursuit of trying to clarify the goal of our work, I am repeatedly reminded of just how vulnerable we are to the limits and consequences of our perceptions. The prolonged exposure to the seemingly endless struggles of behaviorally disordered (emotionally disturbed) young people intermittently clouds my ability to appreciate the richness of their innate strengths and resilience. At other times, it is remarkable to me to be aware of how much extraordinarily "deviant" behavior I have learned to accept in my own way as "normal". Then, when I pause to observe those who are not handicapped by their behavior, I am often amazed at what they can and will do.

This third volume of *Programming for Adolescents with Behavioral Disorders* continues the preceding efforts to help us better understand the needs of troubled youth and serve them more effectively. It has special significance to me, not because of its particular content, but because it comes at a time in my life when I have the privilege of parenting, and observing, two teenagers, one age 13 and the other age 16. As a parent I have been culturally sensitized to be wary of the classical "storm and stress" my children are expected to experience during their adolescence. As a professional, I have been trained to be more objective about my observations and expectations. It is fascinating to be aware of how difficult it is to inhibit the expression of my culturally conditioned expectations with my intellectual beliefs.

I would like to share two personal examples, one involving each of my children. The circumstances are typical and I believe illustrate the need to be cautious about classical perceptions of adolescents. Let me introduce them. Missy is 16 years old and John is 13. Both are bright, sensitive, loving, and they are very different from one another.

Beginning with Missy, in the months preceding her 16th birthday, her most important agenda was completing her driver's training. She took the test (and passed) as soon after her birthday as possible. She has demonstrated her knowledge of driving laws and ability to handle a car. Not surprisingly, now she wants and "needs" a car almost daily. Her mother and I welcome the relief from having to taxi her to and from her many activities, yet we are less than eager to set her loose with a car. Certainly, we are concerned for her safety, and she does lack experience, but she has consistently demonstrated responsible behavior. Still, we are compelled to ask many questions about where she is going, and with whom, and to remind her of our expectations and what time to be home.

John entered the 7th grade this fall. He is a very social, uninhibited youngster and has become quite "skilled" at finding more important matters to attend to than homework. Naturally, his mother, a junior high teacher, and I have had many discussions regarding our concerns about his adjustment to the new rigors of junior high. As the days approached the opening of school, we took every oppor-

tunity to remind him of the new expectations that he would have to handle, and we began to subtly brace ourselves for potential problems. Imagine our surprise when, on the night before the first day of school, this master of disorganization posted a detailed daily schedule for himself on his bedroom door, announced that he wanted us to be proud of him in his new school, and put himself to bed at 9:30. His mother and I hastily recovered from the jolt of this unanticipated behavior, and of course, promptly expressed our approval. The next evening at dinner, we each described our first day back at school. John boasted proudly about how well things had gone and then explained that he had been chosen as one of the 7th graders to be on the student council!

My purpose for sharing these stories is not to brag about our children, or suggest that we don't have the typical problems to resolve, but to illustrate that each child has behaved in ways that we have wanted and hoped for, despite our restrained expectations (fears) that they might not. Too often we give young people a message that we expect trouble for the duration of their adolescence. Frequently they fulfill our prediction and reinforce the belief. The fact is that most adolescents learn to cope with stressors and manage this time in their lives quite well. And, they possess attributes which we value in adults, but for some reason find troublesome in youth. Consider these typical characteristics.

Adolescents have considerable energy, drive, and vitality. Yet adults, particularly in schools, expend much effort trying to find ways to surpress or "tame" this youthful energy rather than reinforce and direct it into creative and challenging activities. Do we believe that an employer wants a worker who has lost his or her vitality?

Young people are naturally curious, and openly question values and philosophies. They are usually frank and honest. They are idealistic and express a genuine concern for society and the world, and they possess a strong sense of fairness. These noble attributes make many adults defensive and are often characterized as rebellion. I find it very interesting that "preoccupation with justice" is sometimes identified as a behavior problem. Should we not all be preoccupied with justice?

Adolescents will be flexible and readily adapt to change, often better than adults, but not without insisting on a reasonable explanation. I find it difficult to understand why we adults believe that we have a right to an explanation from employers, spouses, or others when we are expected to adapt to changes, yet we often get angry when young people ask the same of us.

Despite adult assertions to the contrary, adolescents often think deeply and seriously. How many times have you heard, or said, "Why don't you just think?" or "Don't you ever think?" They are particularly sensitive to their own feelings, as well as how others perceive them. Young people are sincerely engaged in the process of defining who they are, and are often clumsy in the practice of their emerging social skills. They need support, and to have their thoughts and feelings acknowledged, not to have them trampled on by insinuations of cretinism. Most young people have a strong desire to do well and need to know that their competencies are valued by people who are important in their lives.

Adolescents are well known for their strong sense of loyalty. Most often this is associated with their relationship with peers. But it is also evident in their allegiance to their family, school, church, and community. These social institutions provide the foundation for the values and behavior patterns that youth will build on as they explore the dimensions of their emerging physiological, intellectual, emotional, and social skills. To the extent that these institutions value, guide, and reinforce the natural attributes of adolescents, young people will happily participate in them and sustain their loyalty.

The young people we are concerned about in this series are the minority of

adolescents. They are not coping well and their developmental needs have not been met. As in earlier volumes, articles are included on assessment, effective interventions, and models for delivery of service. However, one topic — depression and suicide — is addressed at length. It is a concern which has received considerable public attention recently, and the rate at which young people are killing themselves ought to be a message to society. We must be about the business of affirming to young people that we value them in our families, schools, and communities.

I do want to thank the many people who have supported and helped to organize the third national conference on adolescents with behavioral disorders. More than 100 people contributed time and effort to its success, and more than 300 persons participated in presentations. Further, I want to thank the Council for Children with Behavioral Disorders for endorsing this work and their editorial staff for their helpful critiques. I especially want to thank the co-editors of this volume, Rob Rutherford and John Maag, and the technical editor, Anne Rhodes, for their work in the completion of this publication. Finally, I want to thank my children, Missy and John, for agreeing to let me write about them.

Sheldon Braaten

What You See Is Not Always What You Get

Richard S. Neel

It has always been my belief that what others have called maladaptive behaviors are in fact very effective behaviors for the youths who are using them. They are end products of a complicated mix of perceptions, previous learning, and predictions, a sort of "best" solution based upon the situation. *Best* should not be construed in any social or moral sense. There may be *better* solutions for the long run or in different circumstances. When the behavior occurs, however, it represents the *best* attempt to adapt to the situation.

Some of you would argue that many behaviors we label as maladaptive do not prove to be good in any real sense because they produce results that are not in the best interests of the child. This may be true in hindsight or when viewed from an observer's perspective. It is my contention that it is not true for the youth at the moment the behavior occurred. Youths behave to influence their environments. They act in response to their desired goals, their perceptions of probable outcomes within the limits of their current skills. Problem behaviors are resultant solutions of these complex equations of variables, some observable, some not. The behavior exhibited is the best alternative that could have been generated given the current circumstances. If we are to change behaviors deemed as inappropriate, we will have to design interventions that will replace those behaviors with ones that are equally effective in producing the results desired by the youths.

An article of this length cannot go into great detail on any facet of the problem of designing intervention programs for children and youth who are labeled as behaviorally disordered. Instead, the author would like to point out three concerns with existing programs that warrant attention. The intention is not to discuss each fully, but rather to help stimulate thought regarding the assumptions we are currently using and to discuss some implications for teachers. First to be discussed are the effects of viewing disturbing behaviors as errors that need to be eliminated. Next, the effects of competing reinforcers on the generalization of behaviors are addressed. And finally, we will turn our attention to the problem of developing lasting reinforcers of socialy acceptable behaviors.

Stop and Replace

The first major concern to be addressed is our tendency to view problem behaviors simply as errors, or as behaviors we want to correct. Programs are developed to reduce or eliminate the occurrence of behaviors we deem as problems, with little attention given to what will replace them. For the vast majority, they are replaced with academics. Sit down, be quiet, and do your work is still the major emphasis of behavioral programming in spite of the warning sounded by Winett and Winkler (1972) years ago. We engineer environments so that the behavior problems do not occur. Take frustration, for example. We set up programs for eliminating frustration. We shorten the assignments, give frequent feedback, provide a host of artificial rewards, and generally try to prevent frustration from occurring. When it does occur, we view it as an error. Seen as such, we work to eliminate it.

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What we fail to do is to teach another set of skills that will allow the child to deal effectively with frustration in the future. When frustration reoccurs — and it always will — the youth is no more prepared to deal with it effectively than before. Even the commonly used techniques of punishment and withholding of rewards do not teach effective ways to deal with frustration, but only teach that frustration is not allowed here. When, however, rewards that affect the behavior cannot be controlled, we are left with little else but the choice of using more power and control. When that fails, we move the children to another setting or exclude them from school altogether.

The reason this scenario is played out in so many classrooms for the behaviorally disordered is because teachers assume the problem behaviors are bad and need to be stopped and replaced with good student behaviors. This ignores the functional effect of behavior. If instead they were viewed as diagnostic behaviors indicating the needs, skills, perceptions, and environmental demands, then the focus would be on what other behaviors the youth could use that would be equally effective in influencing the environment. Continuing with the example of frustration, the question is not how we can control frustrated youths so that they will do the work in front of them. Rather, the question is what acceptable behavior do we want these youths to use to show us that they are frustrated and need to escape the situation.

Unfortunately, many of the programs developed ignore the functional effects of the behaviors they are trying to change. Often the message taught is to stop doing what you are doing, get to work, and you will be rewarded in some distant time. Far too often, the goal is to replace problem behaviors with academic efforts that will earn a postponed or artificial effect. For example, since the current utility of unlike fractions or short "a" for most youths is limited, many teachers resort to adding temporary and artificial rewards. Each new set of problem behaviors then becomes another way to receive praise, free time, or some other goodie. Such learning is not functional. Neither the behavior or its effects resemble the problem links that exist in other environments. More importantly, the instructional programs do not address the problem of when frustrated, what do I do?

Left with no direct instruction of more effective means to act, the youth returns to the behaviors that worked in the past, the ones we label as disordered. It is this link between the effect desired and the behavior chosen that is so important in designing interventions for behaviorally disordered youth. Even when instructional programs are developed that are effective in the classroom, the behaviors often do not transfer to other settings and situations. This problem is referred to as failure to generalize. Why do behaviors fail to generalize? What can we do about it? The partial answer to these questions is the study of the effects of competing reinforcers on behavior.

Competition, Not Generalization, Is THE Problem

Felix Billingsley and the author conducted a study recently that looked at the effects of competing behaviors on the generalization of skills from the training setting to other environments (Billingsley & Neel, 1985). We found that as long as there was another behavior in the environment that produced a result for the child that effectively competed with the behavior we had trained, the newly trained behavior would not occur outside of the training setting. Once the other behavior was controlled — that is, made less successful than the trained one — then the trained behavior occurred without any additional instruction.

This finding has significance for behaviorally disordered adolescents. Often we achieve results within a particular class or school only to see the results fail to generalize or maintain outside that setting because other behaviors are more

effective in producing the result desired by our students. Far too often we have programs stopped because youths have broken the law or run away. We frequently can do pretty well when they come to school, but this is for many a very infrequent behavior. Often, too, there are other rewards that divert behavior. The author learned long ago that model planes, hugs, pats on the head, and even a captivating personality were often inadequate competitors for drugs, sex, or even the excitement of almost getting caught. How can we change the balance of competing behaviors? What are our competing rewards? What reward systems can be used that will effectively control behavior outside the school setting? There are no simple answers, of course. These questions lead to the third point.

Guilt, Ethics, and Values: The Big Brother for Us All

Why do we act the way we do? What is it that creates for us a set of values that allows 200 million of us to live as we do? It certainly is not the current rewards we receive. How many of you were good today? None? Oh, come now, most of you got dressed, didn't you? What happened when you dressed? Did you follow a sequence? (For most of us, it is the same one every day.) Were you told "good underwear selection" or "nice shirt buttoning"? The sad truth of the matter is that most of the time we are behaving, we are ignored. How did we learn to do that? What series of teaching experiences did we go through that allow us to engage in a wide variety of behaviors with little or no immediate reward.

Of course, these questions cannot be answered in the time allowed—nor could many of them be answered if one had all year! However, one point needs to be highlighted. The major controller of our adult behavior is Judeo-Christian beliefs with a heavy dose of Puritan ethics thrown in. This is our competitor. It is the reward/punishment system that most of us use to maintain our behaviors. When we are given permission to escape this system, we often behave in ways that would be viewed as disordered in many schools. Malamuth and his colleagues (Malamuth, 1981; Malamuth, Haber, & Feshbach, 1980) asked a group of young male freshmen whether or not they would rape a woman if they were guaranteed that they would not be caught. Over 20% had a score of 3 on a 5-point scale of likelihood. The strength of ethics and values as a controller of behavior cannot be denied.

The question the author wishes to raise is how do we teach these complicated sets of behaviors and rewards to a group of youth who, for whatever reasons, have not learned them by the time they are 15 or 16 years old? We currently try to teach them the way we learned when we were much younger. Some of you try to replace the parents they never had. You take them home at nights, weekends, and over summer vacation. Others try to highlight the current and future rewards that are available to youth. Others develop artificial rewards and controls to supplant the current situation. Others just contain the youth until they get older. A recent follow-up study done at the University of Washington (Neel, Edgar, & Levine, 1986) suggests that those strategies only work for about 25 to 30% of the population that stay in school. The percentage may be even worse for the large numbers that drop out along the way.

This article suggests that we may need to look at other ways to approach the subject. The signs of a dying paradigm outlined by Kuhn (1970) in *The Structure of Scientific Revolutions* are increasing in our field. We need to ask different questions and look in different areas to find solutions. To help with this process, here are four notions that occupy a good part of the author's time. They are offered as logs on which to rest, look around, and plan the next part of our journey. When they no longer help in that effort, leave them behind to rest in the forest of ideas.

1. Prerequisite skills are a panacea of instruction. We allow ourselves to be

deluded by progress on skills that are not real, in places that do not count, and under circumstances that will not be present anywhere else in the life of the youth. We need to develop interventions and delivery systems that teach direct skills in the places where the problems exist.

2. Problems are not errors to be eliminated. They are diagnostic behaviors that indicate the degree of match between the skills and perceptions of the learner on the one hand and the perceived and real demands of the environment on the other. The diagnostic information provided by direct observation and measurement of behaviors within current contexts provides a wealth of information for planning interventions.

3. Some behavior problems require instruction in nonschool environments. This means that we may very well have to develop alternate systems for the determining and delivering of programs to youth. The current system of territoriality and division of responsibilities creates problems often too vast to overcome. Interagency agreements are a positive step in this direction. It may be necessary, however, to create altogether different systems to address the problem.

4. Interventions that work, work now. What we do needs to be evaluated in terms of its effectiveness in the present in all the environments frequented by youth. It is not productive to program for the future when the present is going to hell in a handbasket. We need to focus on current problems and current solutions. As Gould (1981) put it, our goal should be effective adaptation to current environments.

The changing of behaviors in a complex world is a decidedly difficult task. We have chosen to work with children who have demonstrated by their behaviors that they do not fit into their current environments in ways that are valued by others. We have before us several choices. We can change the child, change the systems, or some combination of both. Our field is replete with partial solutions and a strong focus on finding THE answer. It is the author's hope that this article has given you some reasons to pause and examine your efforts in light of what you assume to be true. And it is the author's goal to increase our ability to design and implement instructional programs that will increase each child's ability to influence his/her environment in ways that are mutually beneficial to everyone.

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Implications of the Relationship Between Observational and Rating Scale Data for the Assessment of Behavioral Disorders

Russell J. Skiba and Patrick J. O'Sullivan

ABSTRACT

Subjects in a study of the relationship between observational data and teacher ratings were 58 students in a self-contained school program for students labeled behaviorally disordered. Two observational measures were collected over a 12-week period: a momentary time-sampling measure of student on-task behavior, and a partial interval observational assessment of three types of disruptive classroom behavior — noise, out of place, and physical contact. Two measures of teacher rating of student behavior were also collected. Correlations between the observational and rating scale data were low for the most part. In addition, analysis of the temporal patterns of the correlations revealed that overall teacher ratings were most strongly predicted by data collected some weeks prior to the actual rating. Further analysis of the teacher rating data suggests that teacher judgment of behavioral disorder is most strongly influenced by high-intensity, low-frequency behavior, and that ratings and behavioral assessment may be tapping different dimensions in the assessment of behavioral disorders.

Research from an ecological perspective (Rhodes & Paul, 1978) suggests that behavioral disorders reside not solely within the student but rather in the interaction of the student and the classroom environment. Teacher perception of what constitutes a behavior problem thus becomes one important consideration in defining and assessing behavioral disorders. Previous research has suggested that teacher ratings of student behavior may differ, however, as a function of teacher tolerance (Algozzine & Curran, 1978), the educational setting (Algozzine, 1980), students' sex (Adams & Anderson, 1982), ethnicity (Kaufman, Swan, & Wood, 1980; Tobias & Cole, 1982), and diagnostic label (Feldman, Kinnison, Jay, & Harth, 1983). In an ecological approach, student behavior represents the other half of the definitional equation; observational data typically are assumed to yield accurate and valid quantification of student behavior due to the direct and objective nature of observational assessment. However, Wasik and Loven (1980) reviewed research evidence identifying three sources of inaccuracy in classroom observation procedures: (a) characteristics of the recording procedure and observation system, (b) observer characteristics, and (c) setting variables. And as Campbell and Fiske (1959) have convincingly argued, similarities among observed behaviors or among teacher ratings may be due to similarities in measurement methods, particularly when a single approach to measurement is

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employed. As a result, it is generally agreed that a combination of teacher rating and direct observation approaches can increase the validity of assessment with behaviorally disordered students by minimizing the shortcomings associated with either procedure when used alone.

In spite of the widespread use of both teacher rating and observational methods for assessing behavioral disorders, there has been relatively little exploration of the relationship between observed student behavior and teacher perception of behavior problems. The few relevant studies typically have found only low to moderate correlations between teacher ratings and observed behavior (Blunden, Spring, & Greenberg, 1974; Campbell, Schleifer, & Weiss, 1978; Copeland & Weissbrod, 1978; Kazdin, Esveldt-Dawson, & Loar, 1983; Routh & Schroeder, 1976; Schachar, Sandberg, & Rutter, 1986). In one of the more extensive studies, Kazdin et al. (1983) compared directly observed behavior of children in an inpatient psychiatric setting to behavior ratings of teachers and external raters. The mean correlation between ratings and observed behaviors was only $r = .32$, even though ratings and observations were obtained for the same children observed at the same time.

The failure to find more than modest correlations between the two most widely used measures of clasroom behavior may have important consequences for assessment. Foster and Cone (1980) have suggested that some of the discrepancy between the two methods may be a problem of differing method variance. Behavioral observation represents a relatively objective measure of behavior, typically conducted over a relatively brief time period. In contrast, teacher ratings are often based on behavior sampled over a longer period of time, but such ratings are more influenced by a number of subjective influences operating on the rater. As has been noted by a number of authors (Cairns & Green, 1979; Patterson & Bank, 1986), there are differing assets and liabilities inherent in the use of observation and rating scales. These differences can have important consequences for the data, and hence for the conclusions drawn about the relationship between the variables under study. Perhaps most importantly, lack of agreement between two measures that are supposedly measuring the same construct may seriously call into question the convergent validity of that construct (Campbell & Fiske, 1959). Viewed in this light, the discrepancy between classroom observation and teacher ratings may indicate serious deficiencies in our understanding of the nature of behavior problems in the classroom, with consequences for both assessment and treatment.

Shortcomings of previous research may also limit the relevance of previous findings for classroom assessment of behaviorally disordered students. First, previous studies have used either a global index of inappropriate behavior (e.g., disruption) or behaviors associated with hyperactivity using subjects diagnosed as attention deficit disordered. Further research is needed to determine whether the weak relationships between teacher ratings and observed behavior extend to more specific classes of inappropriate behavior, using subjects and behaviors more specifically associated with the label *behaviorally disordered*. Secondly, only the Campbell et al. (1978) study looked at behavior over time, but the time interval (2 years) in that study was so long that different teachers, observers, and rating scales were used. Hence, the temporal relationship between teacher ratings and observed behavior has not been studied in a way that would permit drawing conclusions about how the two measures covary over time. And since changes in behavior over time are of critical importance in diagnostic and treatment decision making, the need to investigate rating-observation temporal relationships is compelling.

The present study investigated the relationship between classroom observations and teacher ratings of student behavior over a 12-week period. A variety of

inappropriate behaviors were recorded by observers, and compared to two measures of teacher perception: a summative teacher evaluation using a standardized behavior rating scale (Behavior Evaluation Scale, McCarney, Leigh, & Cornbleet, 1983), and weekly global ratings of student behavior. The study had two general purposes. The first involved identifying dimensions of student behavior that most highly influence teacher judgment of behavioral disorder. The second purpose was to delineate the temporal relationships between student behaviors and teacher judgment of student behaviors.

METHOD

Subjects

Students. Serving as subjects were 58 students attending a self-contained public school program for students with severe learning and behavior problems. The 53 boys and 5 girls lived in a large midwestern city. All students were diagnosed as emotionally/behaviorally disordered in accordance with state guidelines and criteria for special education placement. All were at least one year behind grade level academically. The students included 10 second graders, 10 third graders, 12 fourth graders, 14 fifth graders, and 12 sixth graders. Their mean age was 10 years 7 months (SD = 16.4 months). Of these students, 68% were minorities with 49% Black, 12% Native American, 2% Spanish, and 5% with other ethnic backgrounds.

Students were served at one of two general levels of service delivery intensity. Of the students 39 received fulll time service in the self-contained program, while 19 received 1 to 3 hours of service in a mainstream classroom in addition to service in their self-contained classroom. No significant differences between the two levels of service delivery existed for students' age (t = -.17, p = .87) or grade placement (t = 1.61, p = .12).

Teachers. Five special education teachers holding state licensure for teaching emotionally/behaviorally disordered students participated in the study. Four of the teachers, together with four teacher aides, taught 8 or 9 students in each of four self-contained classrooms for 100% of the school day. The fifth teacher and an aide instructed 15 students in a self-contained classroom for the entire school day, except for the 1 to 3 hours of mainstream class time per student. Four of the teachers were female, one was male. Classroom teaching experience with behaviorally disordered students ranged from 2 to 12 years. Participation on the part of the teachers was voluntary. Participating teachers were told that the purpose of the study was to gain more information about the behavior of severely behaviorally disordered students, and about the instruments used to gather such information.

Procedure

Data from two direct observation procedures and two teacher rating scales were gathered over a 12-week period. Observation data were collected for percentage on-task behavior and for disruptive behavior (three types). Two types of teacher rating data were also collected during the same 12-week time period: a 4-item Brief Rating Scale (BRS) of on-task and disruptive behavior, and the Behavior Evaluation Scale (BES, McCarney et al., 1983), a standardized behavior rating scale. Both the direct observation measure of on-task behavior and the teacher brief rating of behavior (BRS) were gathered once each week. Data on disruptive behavior were collected during half of the weekly observation periods, and the teacher rating on the BES was completed once — between the seventh and ninth weeks of the study. A timeline summarizing the schedule of data collection is presented in Table 1.

Observation procedures. Two paid undergraduate students were recruited as observers. Observers were trained for 20 hours on both observation measures —

TABLE 1

Schedule for Data Collection of the Teacher Rating and Observational Data

Measure	WEEK 1	2	3	4	5	6	7	8	9	10	11	12
Percent on-task (Observation)	x	x	x	x	x	x	x	x	x	x	x	x
Disruptive behavior (Observation)			x	x	x		x		x	x		
Brief rating scale (Teaching rating)	x	x	x	x	x	x	x	x	x	x	x	x
Behavior evaluation scale (teacher rating)							x	to	x			

10 hours observing and coding a videotaped classsroom setting and 10 hours in the actual setting — to a criterion of .90 interobserver agreement. In order to test for observer drift during the course of the study, interobserver reliability was tested during the fifth week by the first author. During reliability checks two earplugs were attached to the same electronic timer on a clipboard, so that both observers listened to the same auditory signal. Mean interobserver reliability, calculated on an interval-by-interval basis, for the momentary time-sampling measure of on-task behavior ranged from 88 to 97% with a mean of 93%.

Observations of student behavior were made during academic instruction periods once per week for 12 consecutive weeks from observation booths separated from the classroom by a one-way mirror. All observations were 30 minutes in length and were conducted during either reading or math class. All students were observed an equal number of times in reading and math in counterbalanced order. The two observation measures were:

1. *Percent On-Task:* One observer observed on-task behavior using a momentary time-sampling measure based on the Planned Activity Check (Risley, 1971). The observer was instructed to record at the end of each 60-second interval, and was cued by an electronic signal through an earphone attached to a clipboard. Although interval lengths greater than 10 seconds have been less widely used in classroom observation, intervals up to 60 seconds in length have been shown to be quite accurate with respect to continuous observation when using momentary time-sampling (Powell, Martindale, Kulp, Martindale, & Bauman, 1977). The interval length used resulted in 30 observations per student per session, for a total of 360 intervals per student over the course of the entire study. The definition of on-task behavior used was as follows:

> On-task behavior is defined as behavior that indicates that the student is actively engaged in the task assigned by the teacher. For students who are engaged in a task requiring silent reading, the student's posture, especially the head and eyes, are oriented toward the material. During a writing task, attention-to-task is defined as being oriented toward the material as well as maintaining at least sporadic contact between the pen or pencil and the paper. In a group setting, the student who is on-task will be either following a direction given by a teacher, or will be oriented toward the teacher or other speaker in the group.

2. *Disruptive Behavior.* The observation of disruptive behavior took place dur-

ing 6 of the same 30-minute observation periods as the on-task observation, and was conducted by a second observer also observing from behind a one-way mirror. Observers synchronized the two systems by turning on their respective timers at the same position of a sweep hand on a stopwatch. Interval length for the observation of disruptive behavior was 10 seconds; any instance of the target behavior during the interval was counted as an occurrence (partial interval time-sampling). The three disruptive behaviors were observed and coded concurrently. The behaviors were not mutually exclusive, so that even though only one occurrence of each type of behavior could be recorded in each interval, all three behaviors could be coded in a given interval. Observations were scheduled such that each student was observed on the three disruptive behaviors for 6 30-minute sessions during the course of the study. This interval recording system designed by Deno (1980) measured the following three categcries of disruptive classroom behavior:

> *Noise:* Any verbalization or sound created by the child designed to disrupt or avoid the lesson as defined by the teacher. The noise may be generated vocally (includes talkouts or unintelligible noises) or nonvocally (as tapping a pencil or snapping fingers).
>
> *Out of Place:* Any movement beyond either the explicitly or implicitly defined boundaries in which the child is allowed movement. If the child is seated at his or her desk, then movement of any sort out of the seat is "out of place." If the child is working with a group, then leaving the group is "out of place."
>
> *Physical Contact/Destruction:* Any contact with another person, or another person's property which is unacceptable to that person. Includes kicking, hitting, pushing, tearing, taking, breaking, but may also include such neutral or positive contacts as hugging, if such contact is unacceptable to the target of the contact.

Teacher Ratings. Two measures of teacher judgment were also collected.

1. Each week teachers completed a 4-item Brief Rating Scale (BRS) by making global ratings of each student's behavior during the period in which the students had been observed. At the end of each 30-minute observation period, observers gave the classroom teacher a copy of the BRS and asked the teacher to rate each student's behavior during the previous 30 minutes. Specifically, the teachers were given the following instructions:

> Please rate the overall behavior of these students during the past half hour, keeping in mind the following types of behavior: noise or talking without permission, out-of-seat without permission, off-task, or aggression against others or self.
>
> A rating of 5 means the student was in general well behaved during the last half hour, exhibiting few if any of these behaviors. A rating of 1 means the student exhibited a number of these behaviors and was in general poorly behaved.

2. Between the seventh and ninth weeks of observation, teachers completed a standardized behavior rating scale, the Behavior Evaluation Scale (BES, McCarney et al., 1983). The BES was chosen over other more clinically oriented scales due to its validity with respect to teacher perception of classroom behavior.

RESULTS

Descriptive results. Means and ranges for percent on-task are presented in Figure 1. Although there was a fair amount of variability among individual students in any given week, for the most part the level of on-task behavior observed remained high throughout the 12 weeks. The mean percent on-task in academic instruction over

the entire 12 weeks was 87.4% (*SD* = 7.93). Over the entire 12 weeks, behaviors coded as noises occurred in 1.6% of the intervals observed (*SD* = .04), out-of-place behaviors in 2% of the intervals observed (*SD* = .3), and physical contact/destruction was observed in only 0.4% of the intervals observed (*SD* = .1).

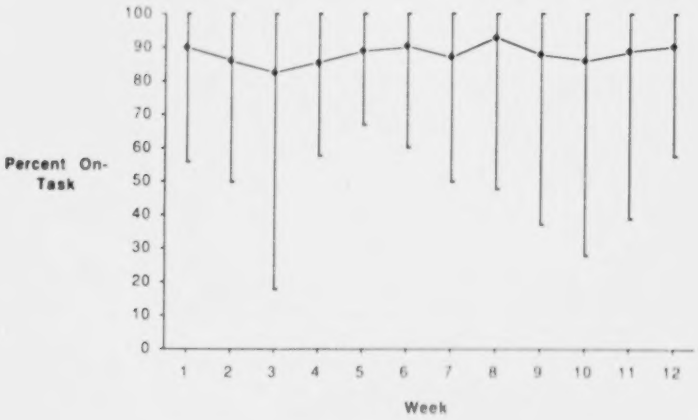

Figure 1. *Percent of intervals for the entire sample (N = 58) over the entire 12 weeks of observation. Connected dots represent the mean percentage on-task, vertical brackets represent the range of on-task behavior observed.*

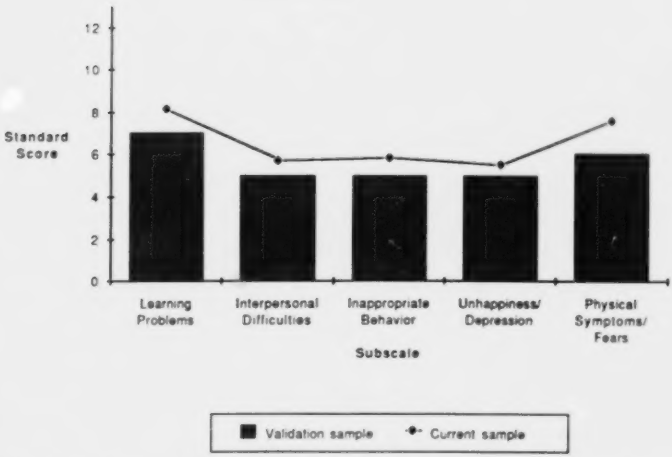

Figure 2. *Standard score means for the Behavior Evaluation Scale subscales (X = 10, SD = 3) for entire sample N = 50). Higher scores indicate more adaptive behavior. Mean for average function is represented by the line.*

Figure 2 presents the mean standard scores on the BES subscales for the entire sample. The connected dots represent the mean scores on the BES subscales for the current sample, while the columns represent the mean rating of the behaviorally disordered sample reported in the validation of the measure (McCarney et al., 1983). While the subscale scores of the current sample are slightly higher than scores from the validation sample, they are also clearly discrepant from average functioning. Average ratings in the areas of interpersonal difficulties, inappropriate behavior, and unhappiness/depression fall more than one standard deviation below the mean for the normal standardization group.

Correlations. Figure 3 presents the median Pearson product-moment correlation between observations of disruptive behavior and the corresponding teacher ratings of behavior (BRS). Observed disruptive behavior tended to show slight to moderate correlations with teachers' weekly ratings of student behavior. In terms of absolute magnitude, physical contact/destructive behavior was most highly correlated with weekly teacher ratings on the BRS (r = .42). About 39% of the weekly correlations between observed behavior and weekly teacher ratings reached significance at the .05 level.

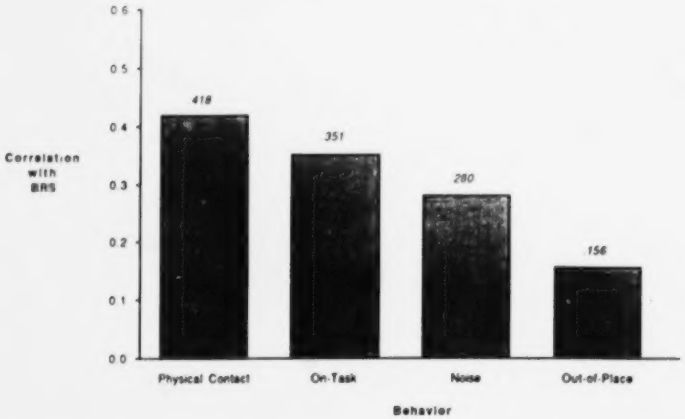

Figure 3. *Median correlations between Brief Rating Scale (BRS) and observed behavior over weeks 1 through 12. Note: Negative correlations for physical contact, noise, and out-of-place variables were converted to positive correlations.*

Pearson correlations between observed behavior and overall teacher rating on the BES were low. Averaged over all 7 observations, only out-of-place behavior showed a significant correlation with overall teacher rating (r = .29, p < .05). Correlations of weekly BRS ratings and weekly percent on-task with the BES total score are presented in Figure 4. Correlations between percent on-task and overall teacher ratings on the BES were for the most part weak or nonexistent. Of the 12 correlations between observed on-task and overall teacher ratings, only 2 were significant at the .05 level — week 5 in a positive direction, and week 11 in a negative direction. The association between weekly teacher ratings and the overall BES rating was somewhat stronger; 5 of the 12 correlations (weeks 5, 6, 7, 9, and 11) were significantly different from zero at the .05 level or better. In addition, there appears to be some evidence of a temporal relationship between student behavior

and teacher ratings. Correlations between the BES rating and both observed on-task behavior and weekly teacher ratings appear to peak between 2 and 4 weeks before the actual teacher BES rating (collected between weeks 7 and 9). All but one of the significant positive correlations between weekly data and overall teacher ratings occur during this period.

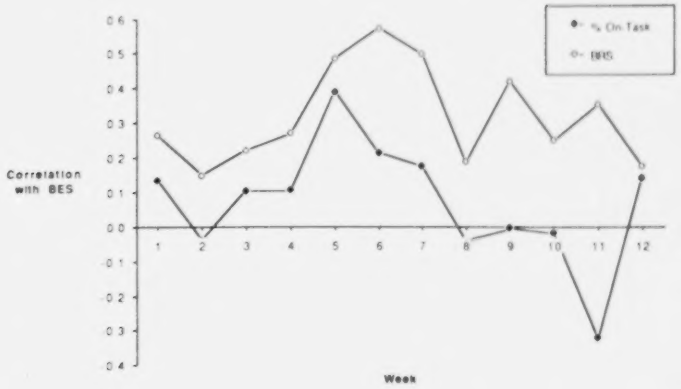

Figure 4. *Correlations of overall Behavior Evaluation Scale (BES) rating with weekly percentage on-task and Brief Rating Scale (BRS) data.*

Given the low correlations between observed student behavior and teacher ratings, correlations between individual items on the BES and the BES total score (item-total correlations) were examined in an attempt to better understand what types of behaviors best predicted teacher ratings. As can be seen in Table 2, item-total correlations on the BES indicated that teachers' overall ratings of behavior problems were most influenced by impulsive, aggressive, or oppositional behavior. All of the behaviors that correlated most highly with the total rating reflect either lack of impulse control, or inappropriate interactions with peers or the teacher, and all were highly significant. In contrast, items that showed the weakest relationship with the total score are inappropriate behaviors that describe or imply a lack of interaction with teachers or peers. None of these items were significantly correlated with the total teacher rating.

DISCUSSION

The current study joins previous research in this area (Blunden et al., 1974; Kazdin et al., 1983) in finding only modest correlations between teacher ratings of student behavior, and observations of that behavior. The relationship between student behavior and summative teacher judgments as expressed on a standardized rating scale appear to be indirect at best. Weekly teacher ratings of student behavior appeared to be moderately associated with observational data. Yet those weekly ratings were in fact more highly correlated with the overall rating on the BES than was the actual student behavior upon which the weekly ratings were based. These findings suggest that while student behavior contributes significantly toward short term teacher judgment of behavior problems, long term evaluation of student behavior may be based more on earlier judgments than on actual behavior.

Similar discrepancies emerge in the estimates of disturbed behavior given by the

TABLE 2

Highest and Lowest Correlations of Individual BES Items with the Total Score (n = 50)

Item Description	Correlation with BES Total Score
Highest	
Acts impulsively without apparent self-control	.789*
Fails to consider or disregards consequences of own behavior	.767*
Makes derogatory comments or inappropriate gestures to other students or teachers	.658*
Does not obey teacher's directions or classroom rules	.647*
Refuses to share or allow others to participate	.620*
Verbally or physically threatens other students or teachers	.614*
Lowest	
Absent or tardy without legitimate reason	-.029
Is preoccupied with drugs or alcohol, or possesses or uses drugs or alcohol	.073
Avoids interaction with other students or teachers	.097
Demonstrates involuntary physical reactions (i.e., shaking, twitching)	.147
Engages in inappropriate sexually-related behaviors	.228

*$p < .001$

different measurement approaches. Teacher ratings of the students' behavior indicated that this sample was very discrepant from normative student behavior. Scores on three of five of the BES subscales were more than one standard deviation below the mean level, and were similar in profile to other groups labeled behaviorally disordered. Yet average levels of observed on-task behavior appeared to be surprisingly high, and disruptive behavior surprisingly low, for a severely disordered population. It seems likely that the highly structured management program and low student-teacher ratios in this sellf-contained program controlled the level of inappropriate behavior during academic classes. Clearly, however, behaving appropriately in the presence of a highly structured program is not sufficient to avoid being viewed as a behavior problem.

While low-intensity inappropriate behavior (out-of-place, noisy) or appropriate behavior (attention-to-task) appear to bear only a negligible relationship to teacher judgment of behavioral disorder, the evidence suggests that teachers' summative judgments are most strongly influenced by high-intensity, low-frequency behavior. Although physical contact and destructive behaviors occurred in less than 1% of the intervals observed, these behaviors were more highly correlated with weekly teacher evaluations of student behavior than were the more frequent low-intensity behaviors. Item-total correlations on the BES provide further support for this hypothesis; items reflecting lack of impulse control,

aggression, or noncompliance were strongly predictive of the total rating.

The results further suggest that judgments of behavioral disorder are most highly predicted by "externalizing" behaviors, and that those judgments may be time-dependent. Items on the BES that were highly correlated with the total score were those inappropriate behaviors that involved interaction with either teachers or peers; behaviors that implied a dearth of interaction with others were the least predictive of overall teacher ratings. The existence of a "halo effect" in the use of rating scales — that is, the tendency for a rating on one dimension to have an undue influence on ratings of other dimensions — has long been noted (Guilford, 1956). The present results suggest that the intensity and perhaps the negative reactions caused by aggressive or defiant behaviors is sufficient to produce a "halo effect" that may strongly influence a teacher's rating of other dimensions of student behavior.

In addition, teacher evaluations of behavior problems appeared to be most strongly predicted by behavior that occurred 2 to 4 weeks prior to the assessment. Replication of these results would necessitate that closer attention be paid to the temporal parameters of rating scales. For how long, for instance, may a behavior rating be considered valid for a given student? Confirmation of a "perceptual lag" between student behavior and teacher rating would in fact mean that rating scales may never be completely valid with respect to current behavior.

It miight be argued that the lack of correspondence between behavioral observation and ratings could be ascribed to problems arising from different sources of method variance (Campbell & Fiske, 1959). If behavior is indeed the result of an interaction of behavior and environment (Rhodes & Paul, 1978), then data from classroom observations will reflect both student variance and "relational, contextual, temporary, etc., sources of variance" (Cairns & Green, 1979). Foster and Cone (1980) suggest that ratings, in contrast, are based on both the objective behavior of the ratee and the subjective reaction of the rater to that behavior. These different sources of method variance for observational assessment and rating scales have commonly led to recommendations of multimeasure assessment that include both observation and rating scales (Bellack, 1979; Foster & Cone, 1980).

An alternative hypothesis might suggest, however, that the two different methods of assessment tap different dimensions of perceptions of behavioral disorders. Behavioral observation seems well suited for assessment of a student's current response to the current environment. Yet the relatively short durations typical of most classroom observations will decrease the probability of recording high-intensity, low-frequuency behaviors that are important in describing the student's current level of functioning. Rating scales, by relying on subjective impression less constrained by specific observational periods, may provide more global information that better reflects the concerns of teachers and other caregivers. Yet the subjective nature of ratings may mean that more subjectively unpleasant or intense behaviors (i.e., aggresssion or impulsivity) will more strongly influence ratings, perhaps to the extent of biasing ratings of less conspicuous (but perhaps equally important) behaviors. Given such an incomplete overlap, it is apparent that neither behavioral observation nor teacher rating scales alone are sufficient to fully summarize the perceptions and/or behavior inherent in the label *behaviorally disordered*. Whether both methods are in fact necessary in a given assessment may depend both on the nature and purpose of the assessment, and on the type of behavior being assessed.

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Correlates of Successful Mainstreaming of Behaviorally Disordered Adolescents

Robert A. Gable, Jo M. Hendrickson, and Bob Algozzine

ABSTRACT

The majority of adolescents with behavioral disorders currently receive a portion of their instruction in mainstream settings. Unfortunately, many of these students are trapped in a failed educational system. The authors argue for the examination of temporal, social, and instructional factors that pertain to regular class integration and in relation to normative performance standards. The feasibility of success not only in the regular classroom but also in various postsecondary settings is presented as a criterion for guiding decision making. Collaboration and consultation among regular and special educators is recommended as a mechanism by which successful integration may be achieved.

More than a decade ago, passage of Public Law 94-142 ushered in a new era for exceptional learners by requiring delivery of an apppropriate education for all handicapped students in the "least restrictive environment" (Strain, Gable, & Hendrickson, 1978). However, for many adolescents evidencing learning and behavior problems the promise of "equality of educational opportunity" is as yet unfulfilled (e.g., Laycock & Tonelson, 1985). While figures show the majority receive some instruction in mainstream settings (Ysseldyke & Algozzine, 1984), it is estimated that less than 12% of the behaviorally disordered population sustain acceptable learning and adjustment patterns in the regular classroom (Edgar, 1984). As Ysseldyke and Algozzine (1982) point out, uncritical interpretation of so-called efficacy studies led to the opinion that regular classsroom placement was preferrable to special class education. Apparently, neither teachers nor handicapped students are sufficiently prepared to cope with the demands of regular class reintegration (Walker & Rankin, 1983). Since it is unlikely that educational policy will soon shift from the doctrine of least restrictive environment, more effective means for serving secondary students in the mainstream need to be identified.

The purpose of this article is twofold: to examine obstacles to the mainstreaming of behaviorally disordered adolescents, and to provide suggestions for improving the reintegration process. Discussion focuses on three factors Kaufman, Gottlieb, Agard, and Kukic (1975) identify as critical to mainstream education: (a) temporal integration — time alloted to participate in the regular classroom; (b) social integration — factors relating to promoting prosocial behavior; and (c) instructional integration — curriculum and instructional adaptation. A brief discussion on the usefulness of establishing normative performance standards follows. Next a mechanism for achieving improved temporal, social, and instructional integration

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through professional consultation/collaboration is presented. Finally, suggestions for reintegrating behaviorally disordered adolescents are summarized.

Toward Temporal Integration

Temporal integration is a cornerstone of PL 94-142 upon which hinges social and instructional integration. The number of handicapped students placed in a less restrictive environment has increased at an alarming rate with little scientific or empirical evidence to support such placement decisions (Ysseldyke & Algozzine, 1984). Indeed, data on *appropriate* time allocations for regular versus special classroom instruction are virtually nonexistent. For the behaviorally disordered, Cullinan (1985) found only one investigation related to temporal integration and it pertains to typical, not appropriate, time in regular education (see Morse, Cutler, & Fink, 1964).

Correspondingly, studies show that teachers of the behaviorally disordered are relatively inexperienced in matters of pupil integration (e.g., Laycock & Tonelson, 1985). Yet responsibility for determining student needs and for selecting appropriate placement alternatives rests almost exclusively on teacher and administrator professional opinion. Unfortunately, precise information on either exit criteria or procedures for returning behaviorally disordered adolescents to regular classrooms is extremely limited (Laycock & Tonelson, 1985). As Nelson (1983) asserts, we are failing to provide a blend of regular and special education practices that enable the behaviorally disordered to succeed in the mainstream.

Implications. There is a growing lack of faith in the efficacy of special education (Algozzine, Sacca, & Maheady, 1986). This may be due in part to the differences between learner and setting demands of regular versus special education classrooms (Deshler, Putnam, & Bulgren, 1985). Also, the fact that many behaviorally disordered adolescents are prematurely or inappropriately placed in regular classrooms may contribute to disenchantment with special education (Laycock & Tonelson, 1985). It follows that research that addresses "learner outcomes" in terms of temporal integration is sorely needed. Additionally, inservice and preservice teacher training programs must begin to address the issue of how best to make decisions on temporal integration given the paucity of empirical data to guide such actions. The likelihood of student success in a less restrictive environment should be the standard which guides such decisions. However, with a decline in funding for special services, pressure may increase to reintegrate behaviorally disordered adolescents. Given the equivocal success of mainstreaming secondary behaviorally disordered students, it seems critical that decisions include the option *not* to risk premature placement in the regular classroom.

Toward Social Integration

The literature on adolescent behavioral disorders reflects a surge of interest in strategies aimed at fostering social competence. Often subsumed under the broad rubric of social competence are the following subcategories of social/survival skills: (a) compliance or rule following behavior, (b) prosocial exchange skills with peers, (c) prosocial exchange skills with adults, and (d) appropriate instruction-imbedded responding. Recent investigations suggest that regular educators stress compliance/routine following behavior over prosocial exchange. For example, Walker and Rankin (1983) found that although teachers differ significantly, they hold a "narrow, intense, and very demanding" perspective on which behaviors facilitate classroom adjustment/achievement.

Kerr (1982) reports that teacher expectations of meeting due dates, arriving at school on time, attending class every day, coming prepared, and exhibiting inter-

est in improving academic performance take precedence over giving assistance, support, or sympathy to peermates. Relatedly, Horton, Walker, and Rankin (1985) note a dearth of information on student opinion regarding which behaviors they deem essential for satisfactory classroom adjustment. Limited data suggest that students entering regular classrooms are expected to show empathy and appreciation for others' feelings and opinions, express realistic attitudes toward themselves, and conform to setting-specific demands on conduct (Cortez, 1984).

That adequate social functioning and acceptance is positively related to later adult adjustment is well known. However, recent evidence suggests that the impact of social skills training on successful postsecondary adjustment has been negligible. That is, the majority of available programs have not been shown to positively affect behavior beyond the educational setting (Edgar, 1984). Lack of social skill cartowitschek, personal communication, April 30, 1986).

Implications. As promising as current efforts to instill selected social and school survival skills may be, it appears that these skills represent a necessary but *not* sufficient repertoire for community integration. Two major tasks remain: (a) documentation of which prosocial skills constitute a functional secondary (and postsecondary) curriculum, and (b) validation of procedures which will enable the mastery and transfer of those skills. To accomplish these tasks, collaboration among educators (e.g., researchers and practitioners) and persons in the larger community (e.g., business and agency representatives) is required. A fuller knowledge of general skills/job responsibilities for entry into the workplace seems critical to understanding community expectations. Finally, the public school curriculum needs to be more flexible. It must contain options whereby the behaviorally disordered adolescent can complete a program which stresses social and survival skills training in school and postsecondary settings.

Toward Instructional Integration

In that the majority of behaviorally disordered adolescents are academically behind (Rose, Epstein, Cullinan, & Lloyd, 1981), specialized instruction is essential to the mainstream movement. Yet current literature reflects scant attention to this area (D'Alonzo, 1983; Epstein, Cullinan, & Rose, 1981). Particularly vexing is the issue of individualized instruction for behaviorally disordered students in the mainstream. To achieve individualization requires that educators possess knowledge of *what* the student needs to learn, *how* the student learns, and the degree to which the curriculum accounts for these two variables. The extent of curricular adaptations usually depends on the subject matter and discrepancies between student capabilities and setting demands. Aspects of instruction to be assessed in achieving individualization are *content*, *presentation*, and *evaluation* (Gable, Hendrickson, & Young, 1986).

Content. Conventional curricula often contain a multitude of so-called "prohibitive skills", stumbling blocks to effective instruction, (Stowitschek, Gable, & Hendrickson, 1980). The sociofamilial environment of the student may influence the potential usefulness of any curriculum; for many students commercial materials may be biased. Furthermore, student acculturation factors play a significant role in determining the outcome of secondary instruction (Wiederholt & McNutt, 1977; Ysseldyke & Algozzine, 1984). For minority students or those who simply do not espouse "mainstream values" the content of instruction often lacks relevancy (Gable et al., 1986). Another content-related problem is that many behaviorally disordered students are likely to have either basic skills and/or content-specific deficits (Wiederholt & McNutt, 1977). For example, students may have difficulty in history due to weak word attack skills or in science because of math computational

difficulties. Similarly, knowledge of historical facts or scientific principles ordinarily gained in earlier grades may be lacking.

Gable, Hendrickson, and Mercer (1985) discuss a two-stage curricular analysis procedure for evaluating the content of instruction. The first step — static analysis — includes assessment of curriculum content, its objectives, subject matter coverage, sequencing, and the degree to which acquisition, maintenance, and generalization are addressed. The second step — microteaching analysis — is recommended for evaluating material *X* over material *Y* and may be useful to assess the probability of student success with mainstream materials prior to reintegration. That is, microteaching analysis might be applied to the instructional materials that the regular teacher is using to determine their appropriatness as well as to pinpoint any modifications required for certain students.

Overcoming the mismatch between the behaviorally disordered adolescent and secondary curriculum may require that teachers either eliminate or supplement content to provide more meaningful referents and thereby increase the utility of the instructional material (Wiederholt & McNutt, 1977). In other instances, it may be necessary to teach prerequisite skills, reduce readability/comprehensibility demands or shorten the length of assignments (Lambie, 1980; Morsink, 1984; Wiederholt & McNutt, 1977). Also, the manner in which the student is required to respond to instruction may need to be modified (e.g., written versus oral responses). Finally, a motivational system may need to be implemented to get the student involved with subject matter that is associated with past episodes of anxiety and failure.

Presentation. A major aim of secondary ihstruction is to equip the student to grasp the content of instruction presented following various teaching arrangements. Individualization may be achieved in large group, small group, tutorial, and independent learner instructional arrangements (Stowitschek, Stowitschek, Hendrickson, & Day, 1984). Although popular opinion suggests that the relative advantage of independent learner arrangement increases according to grade level, research on the positive influence of individual systems of instructing the secondary student is equivocal (Bangert, Kulik, & Kulik, 1983). One possible explanation is that many students lack skills required to function independent of adult direction.

Use of advance organizers, models, and modeling (Stowitschek et al., 1984), tape recorded instructions (Stowitschek et al., 1980), and combining prerecorded material with visual prompts marked in a textbook (Deshler et al., 1985) seem well-suited to successful individualization. In a recent study, Lovitt and his colleagues reported on a series of adaptations in the area of science (Lovitt, Rudsit, Jenkins, Pious, & Bendetti, 1986). Modification consisted of preparing vocabulary lists covering important words and their definitions and framed outlines containing main ideas from the reading material. Results show that both exceptional and normal learners can profit from adaptive instruction.

Evaluation. Evaluating the effect of instructional integration is essential to gaining an understanding of the variables influencing success or failure in the mainstream. Use of a system for monitoring the linkage between student and curricular materials increases the likelihood of singling out those aspects of content (or its presentation) that require modification before failure occurs. Regularly administering probes of skill mastery or well-designed pretest-posttest measures at frequent intervals is recommended. For a fuller discussion on various elements of curricular adaptation, readers are referred to Gable et al. (1986), Lambie (1980), Stowitschek et al. (1980), and Wiederholt and McNutt (1977).

Establishing Performance Standards

Data routinely compiled for making decisions on mainstreaming behaviorally disordered students are of limited worth; often they are too vague and subjective for making sound placement decisions (Heron & Skinner, 1981). Zabel, Peterson, Smith, and White (1982) have shown that discrepancies exist between the availability and usefulness of assessment data at the time of reintegration. And as Ysseldyke and Algozzine (1982) attest, the wisdom of decisions based on conventional standards is in doubt. To remedy those inadequacies, Forness (1979), Walker and Hops (1976), and others advocate compiling normative data to serve as a standard in treating the behaviorally disordered. Data collected on teacher-nominated regular students performing "successfully" could provide an index on multiple adjustment factors. Such a database is critical if personal opinion is to be replaced with more uniform standards. With a normative database, movement between levels of services would depend on a student's knowledge and skills in relation to performance expectancies in the setting(s) under consideration.

To facilitate quality placement, decisions data can be gathered on (a) pupil behavior, (b) peer-referenced normative standards, and (c) discrepancy measures — calculated by comparing a and b (see Figure 1). With these data, decision making will be more objeective. Also, this information would contribute to collaboration between special and general educators seeking to serve better mainstreamed behaviorally disordered students. More on this important subject follows.

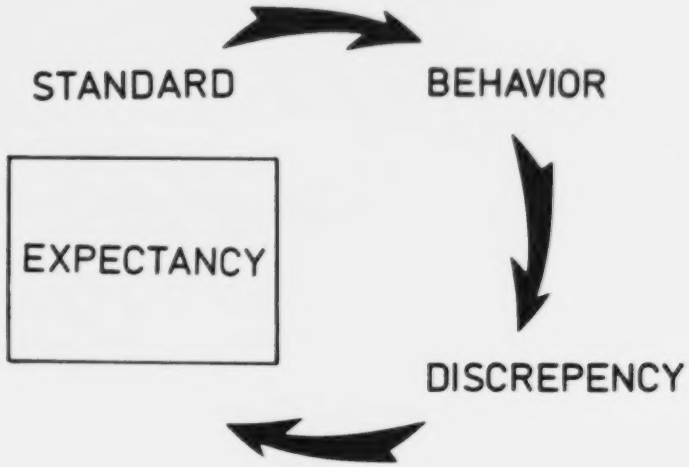

Figure 1. *Functional Assessment Model*

Reintegration Through Collaboration and Consultation

Confronted with the need to serve growing numbers of handicapped students in the least restrictive environment, a change in the roles of special and regular educators seems essential. Casting special educators in the role of team members and consultants represents a potentially useful mechanism for reintegrating behaviorally disordered students. Although much is as yet unknown, skill in the

following areas seems essential if collaboration and consultation efforts are to succeed: (a) interpersonal skills, (b) problem solving, (c) content knowledge, and (d) understanding of the organization and operation of systems (e.g., Curtis & Meyers, 1985; Friend, 1985; Haight, 1984; Idol-Maestas, 1980; Kerr & Nelson, 1983; Marotz-Sprague & Nelson, 1979).

Interpersonal skills. The ability to communicate effectively, identify the perspective of others, and engage others to participate in mutual problem solving and sharing of responsibility is based on the utilization of interpersonal skills. Possible pitfalls to communication among special and general educators include what has been termed "values incompatibility" (Rosenfield, 1985). Training and experience often engender differing philosophical perspectives between regular and special education personnel. Minimizing the use of jargon and providing a full description of procedures helps to avoid value clashes and eliminates confusion over various aspects of a plan of action (Kerr & Nelson, 1983). At the same time, it is important to maintain focus on those aspects of a *student's behavior* (rather than teacher behavior) which may mitigate against successful mainstreaming. This diminishes the perception that the special education teacher is being critical or "advice giving" on faulty regular classroom practices.

As Haight (1984) asserts, sensitivity in carrying out the consultation process is called for in order to positively influence regular teachers' skills in mainstream settings. In that the vast majority of regular class personnel are uncomfortable with receiving direct service in their classroom (Speece & Mandel, 1980), special educators must be prepared to conduct conferences outside of the classroom. Probing, paraphrasing, or other skills for translating these verbal exchanges into sufficiently precise terms to formulate a plan of intervention are important attributes of special educators (Friend, 1985). In the end, the outcome of the consultation process may depend on the extent to which the special educator is able to (a) gain necessary information, (b) focus attention on student behavior, (c) clarify roles and responsibilities of the participants, (d) delineate a mutually acceptable plan of action (and timeline), and (e) remain faithful to the intervention program to its conclusion (e.g., Haight, 1984; Kerr & Nelson, 1983; Moore & Gable, 1983).

Problem-solving skills. Kerr and Nelson (1983) describe problem solving as consisting of "problem identification, problem analysis, plan implementation, and problem evaluation" (p. 276). The four-fold process is well-suited not only for reintegrating but also maintaining regular classroom placement of behaviorally disordered adolescents. Briefly, *problem identification* calls for accurately and precisely pinpointing learning or adjustment difficulties. Information obtained through narrative recordings (Kerr & Lambert, 1983) and anecdotal interviews can be used to gain an operational definition of the problem(s). Although not always practical, direct classroom observation provides baseline data on presenting problems (see Kerr & Nelson, 1983; Worell & Nelson, 1974). While certain limitations exist on employing rating scales or problem checklists (e.g., too global, lack of quantification, unreliability), they too can contribute to problem identification.

Once an accurate definition of the target behavior(s) is obtained, the next step is to conduct a *problem analysis* — specifying variables which may influence the occurrence of the behavior(s) (Kerr & Nelson, 1983). Analysis should lead to establishing probable classroom events that will set the occasion for desired behavior and those which will reinforce target behavior(s).

An *implementation plan* for mainstreaming a behaviorally disordered youth should contain a description of the problem behavior, precise specification of the intervention, and a clear delineation of activities and responsibilities of all participants (see Kerr & Nelson, 1983; Marotz-Sprague & Nelson, 1979). A plan to introduce proven techniques for modifying target behaviors must be tempered by

knowledge of factors that may mitigate against certain procedures (see section on Organization and Operation of Systems).

The final step is *problem evaluation* and should address the following questions:

Is the program proceeding as planned?

What program changes are needed?

What is required to transfer the implementation plan to the control of the regular classroom teacher?

Readers interested in a more complete discussion on evaluation procedures are referred to Deno and Mirkin (1977); Gable, Hendrickson, Evans, and Evans (in press); Marotz-Sprague and Nelson (1979); and Worell and Nelson (1974).

Content knowledge. Special educators bring to the educational team specific knowledge of behavior management and curricular adaptation. Often they are called on to provide expert assistance to regular teachers lacking skills associated with these areas. Therefore, simply describing steps which comprise a particular teaching strategy may not be sufficient to ensure that it will be carried out to the benefit of student reintegration. Imparting teaching skills through the use of role playing, in vivo training, and rehearsal appear more effective than less direct approaches (Cipani, 1985; Kerr & Nelson, 1983). Ample opportunity must be afforded regular educators to become skilled in the specified behavior; feedback must be given to correct methodological flaws; and sensitivity and willingness to modify the original plan must be developed. Use of scripts that provide a narrative description of teacher *and* pupil behavior are well-suited to training and serve as a permanent product for future reference.

Programming for reintegration into a less restrictive environment focuses team work on transfer of training and generalization of skills. In some instances, a series of training sessions that include the special and regular classroom teachers as well as the student may be needed. Generalization training might also incorporate the support of normal classmates who are instructed to provide verbal prompts and reinforcement for desirable classroom deportment. The behaviorally disordered adolescent might be paired with his mainstream counterpart so that the regular student provides assistance regarding classroom routine, expectations, clarification on assignment, and so forth. Readers are referred to Rutherford and Nelson (in press) for an excellent discussion of generalization and maintenance issues.

Organization and operation of systems. Knowledge of administrative policy and the politics of a particular setting is critical to formulating a realistic plan of reintegration. Any successful plan must have the acceptance and support of those directly involved as well as those in authority (e.g., principal, supervisor, etc.). Another area of concern pertains to sanctions (legal or policy) against certain procedures and any liability which may be incurred in carrying out the consultation process (see Kerr & Nelson, 1983).

Barriers to carrying out colllaboration/consultation are many and varied. Problems associated with the negative impact of labels, insufficient role definition regarding services to be provided, limited time, and limited administrative support are common (Evans, 1980; Haight, 1984; Idol-Maestas & Ritter, 1985). One possible solution is to introduce emerging special education technologies into the multidisciplinary process. In many instances, programs for behaviorally disordered adolescents are now situated in close proximity to the mainstream (i.e., regular secondary schools). Multidisciplinary teams have been established for making decisions on reintegration of behaviorally disordered youth. They are usually comprised of diagnosticians, special educators, regular secondary teachers, school psychologists, supervisors, and administrators. It follows that these team members could collaborate on temporal, social, and instructional integration decisions pertaining to individual students. Adapted from McGlothlin

(1981), listed below is a stepwise procedure whereby committee members can make decisions on reintegration of behaviorally disordered adolescents.

Multidisciplinary Committee Decision Making on Reintegration

1. Screen possible candidates according to general exit criteria/expectations.
2. Determine extent to which the student's actual performance coincides with normative standards.
3. Examine continuum of services for most appropriate option.
4. Specify entry-level performance expectations.
5. Specify indirect services to be provided.
6. Devise specialized transition plan and establish appropriate timeline.
7. Schedule generalization training activities to be jointly carried out by regular and special education personnel.
8. Monitor student progress and provide follow-up services (as needed).

SUMMARY AND CONCLUSION

Today, a growing number of behaviorally disordered youth receive some instruction in regular classrooms. For these students to succeed, greater emphasis on team work between regular and special educators seems essential (Laycock & Tonelson, 1985; MacMillan, Jones, & Meyers, 1976; Nelson, 1977). Indeed, the time has arrived for collaboration and consultation to be viewed as a legitimate aspect of a continuum of service delivery options (Haight, 1984). Special education teachers must assume a more active role to assist regular teachers in learning to manage most instructional and behavioral problems (Kerr & Nelson, 1983). Since survey data indicate that few teachers receive formal preparation in consultation (Idol-Maestas & Ritter, 1985; Lilly & Givens-Ogle, 1981), teacher preparation programs must make provision for imparting knowledge and skills that pertain to the consultation process (Lilly & Givens-Ogle, 1981).

It should also be acknowledged that regular educators from the beginning have not been favorable toward integration of the handicapped (e.g., Ysseldyke & Algozzine, 1982). Fear and misunderstanding regarding the behaviorally disordered student has not diminished greatly over the past 10 years. Strain and Kerr (1981) reported that questions of insufficient knowledge, procedural competence, and lack of support underlie negative feelings toward the handicapped. Quality pre- and inservice training, combined with opportunities for regular educators to practice proven strategies, can be a factor in promoting more positive attitudes (Morsink, 1984). As Burgess and Bushell (1969) assert, "such (attitudinal) change may be a consequence of behavior change, rather than its precondition." We believe that unfavorable attitudes and high failure rates can be reversed by collaborative efforts that judiciously address reentry through sound planning for temporal, social, and instructional integration of the behaviorally disordered adolescent. In addition to the conclusion stated above, the following summarizes some of the major points highlighted throughout this article:

1. Further investigation of various aspects of temporal integration is sorely needed.

2. In that behaviorally disordered adolescents are often prematurely placed in the mainstream, school personnel should exercise caution in making reintegration decisions.

3. Since emphasis differs on social/survivial skills valued by teachers versus students (peers), mainstreamed students need to be taught to function effectively according to *both* groups' standards.

4. A number of strategies exist for incorporating knowledge of the demands/

expectations of postsecondary environments into the overall design of secondary curricula. More widespread use of these strategies is called for.

5. There are a growing number of procedures for promoting instructional integration through matching learner needs with the curriculum. Practitioners need to be trained in and make use of these procedures.

6. Finally, team work may be the most critical ingredient to successful delivery of education services to the behaviorally disordered adolescent in the least restrictive environment.

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Technique and Rationale for Teaching Process Writing to Adolescents with Behavioral Disorders

David Unruh

ABSTRACT

Writing is most frequently taught as a product rather than a process. However, teachers who have used both methods eagerly endorse the process approach because it produces better writers. Benefits of the process approach of particular interest to professionals working with behaviorally disordered adolescents include its use to improve self-awareness, self-expression, risk taking, interaction skills, problem-solving skills, and self-concept as well as to refine diagnoses and improve treatment programs. The teaching of writing as a process is discussed, and specific advantages for behaviorally disordered adolescents are explored.

One of the difficult jobs faced by educators working with behaviorally disordered adolescents is finding enough time in the already crowded school day to give adequate attention to the development of both social and academic skills. Because the materials and programs available focus primarily on one or the other of these two areas, curricula that develop both simultaneously would maximize the use of limited class time.

In addition to producing better writers, the teaching of writing as a process can have a positive impact on both the academic and social skills of handicapped students (Graves, 1985; Graves & Stuart, 1985; Unruh, 1985). It can also yield additional benefits of particular interest to educators working with behaviorally disordered adolescents. Specific skills frequently considered to be underdeveloped in behaviorally disordered students, including personal interaction, risk taking, problem solving, self-expression, and self-exploration, can be developed through process writing. Other benefits can include the strengthening of student self-concept and providing information to improve treatment strategies and refine diagnoses of student problems.

This article provides both an introduction to process writing and a rationale for its use with behaviorally disordered adolescents. In order to understand its potential applications, it is necessary to have a clear understanding of the specific steps constituting the process writing approach.

TEACHING WRITING AS A PROCESS

Whereas the component or product approach to teaching writing stresses form

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Materials cited in the references published by the University of Wisconsin-Madison, School of Education, were developed by teachers participating in the Wisconsin Writing Project. These materials and a list of other available booklets on writing produced by the Wisconsin Writing Project can be obtained by writing the Wisconsin Writing Project, 556 Teacher Education Building, University of Wisconsin, 225 N. Mills Street, Madison, WI 53706.

and mechanics, the process approach emphasizes content, meaning, and purpose. While advocates of process writing acknowledge the importance of form and mechanics, they do not assign primary importance to these skills. Although a component approach as used on an assembly line may be successful in the construction of cars, furniture, and appliances, human mental processes function differently. Current research suggests that children learn language, both written and oral, by moving from wholes to parts, focusing on meaning prior to form (Graves & Stuart, 1985). Although it is conventionally accepted that meaning is the foundation of our communication and it is stressed when children learn to speak, when they are taught to write the emphasis is often placed on form or mechanics. A focus on meaning in the teaching of writing helps students make sense of things for themselves and others and provides educators with an understanding of what their students think and can do.

Success in teaching writing, however, is contingent not only upon an accurate understanding of the writing process but also upon the continued development of the teacher's own writing skills, a fact which may account for the popularity of the mechanistic approach (Graves, 1983). Many educators are simply not at ease when teaching writing for a variety of possible reasons including insufficient experience and practice with their own writing, lack of preparation in the teaching of writing, and/or previous failures in attempts to teach writing skills (Graves, 1978; Haugen, Kean, & Mohan, 1981; Perez, 1983; Walmsley, 1980). As a result, writing lessons focus on the mechanics of writing (such as spelling, punctuation, and grammar) which can be presented and objectified easily.

While research on writing instruction provides limited support for the mechanistic component approach, more promising results have been observed using the process approach in both regular classrooms (Daniels & Zemelman, 1985; Graves, 1983; Graves & Stuart, 1985; Haugen et al., 1981) and special education classrooms (Dehouske, 1979, 1982; Graves, 1985; Tompkins & Friend, 1986; Torrison, 1984).

A brief explanation of each of the four steps in the writing process — prewriting, composing, editing, and follow-up —follows. For further understanding of process writing and its use in the classroom, the reader is encouraged to consult *A Writing Project* (Daniels & Zemelman, 1985), *Writing: Teachers and Children at Work* (Graves, 1983), *Write from the Start* (Graves & Stuart, 1985), *A Guide to the Role of the Teacher in the Writing Process* (Haugen et al., 1981), and the numerous publications of the Wisconsin Writing Project. In addition, several authors (Graves, 1985; Tompkins & Friend, 1986; Unruh, 1985; Unruh and Policastro, in press-a) discuss the use of the process approach with special populations including the behaviorally disordered.

Prewriting

This is the initial stage in the writing process, and it is here that one must first focus efforts to improve student writing (Tompkins & Friend, 1986). Although usually little time and attention are devoted to prewriting activities, in the process approach this step receives the most time and consideration. Whereas in traditional writing instruction less than 5% of the time allotted for a given writing assignment may be set aside for prewriting, supporters of the process approach suggest that at least 70 to 85% of the time spent on developing writing skills should be spent on prewriting activities (Daniels & Zemelman, 1985; Murray, 1982). For behaviorally disordered students and students with a history of failure in writing, even higher percentages of time may be necessary (Torrison, 1984).

In the prewriting stage, the emphasis is on what students know and can do — not on what knowledge or skills they lack. The student is the source of knowledge, and

the teacher is an active learner also (Hansen & Graves, 1986). The teacher must provide the structure, stimulation, motivation, and supportive environment for students to generate and share their own ideas and thoughts. Prewriting activities include observation, reading, discussions, relaxation exercises, role playing, mapping, experimentation, sensory exploration, interviewing, brainstorming, and clarification of the assignment. For behaviorally disordered students bibliotherapy might also be appropriate. Several authors (Daniels & Zemelman, 1985; Haugen et al., 1981; Tompkins & Friend, 1986; Unruh, 1985) provide us with a variety of ideas and activities for use in this phase of the writing process.

Composing

Composing is the actual transcribing of ideas on paper. In the process approach, especially when preparing the first draft, emphasis is placed on the communication of ideas and feelings rather than on the mechanics of grammar, punctuation, and spelling. Successful communication at this stage is contingent upon adequate preparation during prewriting activities. With sufficient preparation, the student will be less reluctant to begin and continue writing and will experience less anxiety when transferring ideas and feelings to paper. Although little is understood of the actual processes involved in composing, at this time the best predictor of student success in composing is the time and effort spent in the prewriting stage (Daniels & Zemelman, 1985).

There are, however, several things one can do to facilitate the actual writing including (a) serving as a "pump primer" —questioning, motivating, and urging students to put their ideas into writing; (b) encouraging thinking and writing by emphasizing that the draft is for the communication of ideas and feelings, and not a final product for a grade; (c) providing a physically and psychologically comfortable environment which the student prefers when composing; and (d) sharing writing samples of other students and teachers with the writers when they come to an impasse. Daniels and Zemelman (1985) and Haugen et al. (1981) provide more information regarding the composition stage.

Editing

For many, editing is synonomous to big red pencil marks highlighting mechanical/-technical errors. In process writing, editing should focus on the reader's response to the content and not on mechanical and technical errors. Because the goal of the process approach is the communication of meaning, the writer should learn what message has been conveyed to the reader and the reader's response to it. The instructor can indicate which ideas are conveyed clearly and effectively and which are not. Suggestions for the modification and change should be discussed with each student.

Although the teacher or the writer does the editing, peers can also serve as effective editors. Preparing behaviorally disordered students for this, however, requires the development of trust among the students so that they feel comfortable enough to share feelings, thoughts, interests, and values with others. But the benefits of peer editing can be worth the effort (Haugen et al., 1981). Daniels and Zemelman (1985) and Haugen et al. (1981) are good resources for helpful tips on editing.

Follow-up

This step involves revision, evaluation, and dissemination of the writing to the intended audience. Unfortunately, too often follow-up is limited to placing a few (or many!) red marks on the paper, assigning a grade, and returning the paper to

the student. A writing assignment requires more than just a grade if it is to fulfill its promise as a method of communication with self and others; a response from the teacher including a summary or description of the message which has been conveyed is indicated (Graves, 1985). Positive feedback and constructive criticism of revisions are appropriate at this time, particularly if further changes are expected. A final work cannot be produced until this information from others has been received.

The student's work may be complete when the final draft is turned in, but the teacher's work is not, for the finished product must reach its intended audience. This may involve publishing the work in a school newspaper, displaying it on a bulletin board, reading it in class, or sending/presenting it to an audience outside of the classroom. Many excellent ideas for follow-up can be found in Haugen et al. (1981).

BENEFITS FROM PROCESS WRITING

Professionals working with behaviorally disordered students can use process writing to develop important student skills including self-awareness, self-expression, risk taking, interaction with others, and problem solving. Self-concept can also be improved. Additionally, process writing can lead to the improvement of diagnoses and treatment/intervention programs for behaviorally disordered students. Each of these benefits is discussed below.

Promote Self-awareness and Self-expression

The writing process stresses writing as communication with self and/or others. Writing helps students (or those who write) to make sense of things for themselves and others (Graves, 1985). Putting thoughts and ideas on paper also helps to organize them so that they can be clarified in the writer's mind and conveyed to others more accurately. Sharing personal thoughts and feelings with others face-to-face is not always easy, but for many behaviorally disordered students, writing provides a safe medium for the expression of feelings and thoughts that could not be shared through other forms of communication (Dehouske, 1979).

Encourage Risk Taking

Compared to oral communication, writing is less direct and threatening and therefore an effective medium to promote risk taking among behaviorally disordered adolescents (Dehouske, 1982). In a secure environment, the behaviorally disordered child can utilize writing to share personal thoughts and ideas with others. The first step traditionally involves the risk of exposure to the teacher, but there is also a risk of exposure to self, of becoming aware of and examining one's true feelings and emotions. Thus, the first level of risk can be viewed as self-exposure and the second level of risk as exposure to a trusted authority figure (i.e., the teacher). Peer editing can introduce a new dimension to risk taking — exposure to peers.

Risking exposure to self, peers, teachers, or other adults is frequently a difficult or almost impossible task for the behaviorally disordered adolescent. Through the writing process, the student has the opportunity to develop the confidence necessary to risk the sharing of feelings and ideas and to work with others. Peer editing can foster healthy risk taking. However, the teacher must take time to create a secure environment in which to train and prepare students to do the job properly.

Improve Interaction Skills

Interaction skills can be improved in specially structured prewriting, editing, and

follow-up activities. In the prewriting stage, student/student and student/teacher interaction can easily be fostered in a variety of ways including discussion, interviewing, experimentation, and role playing (Tompkins & Friend, 1986; Unruh, 1985). Clearly, interaction with teachers and/or peers is required during the editing stage. In the follow-up stage, evaluation can also be structured to promote interaction, and student involvement in delivering the assignment to the intended audience can require the use and development of additional interaction skills, this time possibly with individuals beyond the classroom or school.

Develop Problem-solving Skills

Process writing can also be an effective tool for improving problem-solving skills (Flowers & Hayes, 1977). Children with social and academic learning problems are thought to be deficient in problem-solving skills (Bryan & Bryan, 1986; Parrill-Burnstein, 1981) or inflexible in their application (Gerber, 1983). Skills necessary for problem solving include (a) stimulus differentiation, (b) selective attention to relevant stimuli/information, (c) response generation, (d) response execution, and (e) appropriate response to feedback (Parrill-Burnstein, 1981).

Written assignments can be developed and activities planned in various stages of the writing process to focus on any one or combination of these skills (Unruh & Policastro, in press-b). Also, several authors (Dehouske, 1982; Policastro, 1984; Unruh and Policastro, in press-a) have demonstrated instructional methods/techniques to develop problem-solving skills through writing. As Graves (1985) suggests, writing helps us organize our ideas and experiences and make sense of them. This organization and understanding are necessary for effective problem solving.

Enhance Self-concept

Self-concept can also be enhanced through process writing (Graves & Hansen, 1983; Graves & Stuart, 1985). For years teachers have been aware of the positive relationship between student performance in school and self-concept (Quandt, 1970). Writing as a process focuses on the student's ideas and knowledge rather than on deficits and lack of knowledge, such as of grammar and spelling. Teaching writing as a process maximizes chances for a successful experience, and self-concept will be improved when the student is satisfied with and proud of a finished product. For many students, this could be the first time that teachers or others are paying attention to their ideas. However, an equally important connection between learning to write and the development of a positive self-concept lies in the improvement of self-knowledge. Teachers participating in the 1983 Wisconsin Writing Project have written the following about self-concept and writing (Christensen, Hamann, & Kean, 1983):

> If a student is to build a positive self-concept, he must know himself — his thoughts, fantasies, abilities, limitations, and views of the world. No matter how much positive feedback the rest of the world gives him, he needs to develop some positive feedback for himself. He fears what he doesn't know. The more clearly he sees himself, the greater the likelihood he can change what he doesn't like and feel good about what he does like.
>
> 'Writing is a means — perhaps the best means — to make knowledge personal, connected, accessible to self' (Strong, 1983). (p. 6)

For tips and ideas on building self-concept through writing, consult Christensen et al. (1983).

Refine Diagnoses

Part of the diagnostic process involves developing an understanding of student behavior. We can ask students to explain their behavior, but too often they are not sufficiently in touch with their own emotions to explain them accurately, or they are afraid to risk exposing feelings of which they are aware. Process writing can promote self-exploration and risk taking, and thus, in turn can assist in diagnoses. Dehouske (1979), who has described the use of writing as a therapeutic tool to promote self-exploration and risk taking in disturbed adolescents, writes that within a nonthreatening environment writing affords students the opportunity to express their concerns and to share themselves with others. Through writing, in their own time and way students can become aware of their true feelings and communicate them. As a result, professionals working with the behaviorally disordered can develop a more accurate understanding of the student's behavior and refine the diagnoses of their condition or situation.

Improve Intervention

Kauffman (1977) has suggested that in order to understand better a child's behavior and to develop intervention strategies to promote change, we must look not only at the behavior and the environment but also at what the child is thinking and feeling. At every step of process writing, and especially in prewriting and composing, students with behavioral disorders may find an avenue for the expression of feelings and thoughts that could not be shared through other forms of communication (Dehouske, 1979). With a better sense of what students are thinking and feeling, those who work with them can modify intervention strategies to meet their specific individual needs.

SUMMARY

Traditionally, writing has been perceived and taught as a product, not a process. It has been assigned to students, not taught to them. The stages of the writing process include prewriting, composing, editing, and follow-up (Daniels & Zemelman, 1985). A growing body of research supports the efficacy of the process approach to writing instruction (Graves, 1983; Graves & Stuart, 1985). Participants in the Illinois and Wisconsin Writing Projects and writing research projects who have used the process approach with their students enthusiastically endorse it (Daniels & Zemelman, 1985; Graves & Stuart, 1985; Haugen et al., 1981; Torrison, 1984).

Beyond its academic benefits, the process approach can facilitate the development of self-exploration, self-expression, problem solving, risk taking, and interaction skills — skills that are frequently deficient in behaviorally disordered adolescents. Furthermore, self-concept can be strengthened through writing. Finally, diagnoses can be refined and intervention strategies improved with the information made available through written communication. With these potential benefits, the process approach to teaching writing warrants close examination and consideration for use in programs for adolescents with behavioral disorders.

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A Peer-Mediated Program for Teaching Self-Management Strategies to Adolescents

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ABSTRACT

This article presents a program for teaching behaviorally disordered adolescents to assume the responsibility for managing their own academic and social behavior. The rationale for adopting a self-management approach to behavior change is discussed along with the similarities and differences between teacher managed and student self-managed programs. Research and development activities are presented, and two studies supporting the effectiveness of the approach are cited. Strategies for facilitating the generalized use of the self-management skills in mainstream classes are also discussed.

Teaching acting-out adolescents can be a difficult and frustrating task. Not surprisingly, given the range of presenting problems evidenced by behaviorally disordered adolescents, a disproportionate amount of emphasis is often given to managing their inappropriate behavior over academic instruction. A behavior management system that would help keep disruptive students on-task and reduce behavior problems while at the same time shifting responsibility for managing behavior from the teacher to the student would certainly be desirable. Such a system would permit teachers to focus on academic and social development. Learning these self-management skills could benefit the students throughout their lives.

The term *self-management* is sometimes used synonymously with the term *self-control*, a hypothetical construct sometimes referred to as *will power*, suggesting an internal source of control (e.g., John has a great deal of self-control). However, Skinner (1953) pointed out:

> It is of little help to tell a man to use his will power or his self-control. Such an exhortation may make self-control slightly more probable by establishing additional aversive consequences of failure to control, but it does not help anyone to understand the actual processes. (p. 241)

In the discussion that follows, self-management refers to strategies that a person uses to alter his/her behavior, frequently to make a behavior less aversive to others and possibly to replace it with a behavior more likely to be reinforced.

Overview of Self-Management

There are several reasons why self-management strategies are important skills for children and adolescents. First, when a student manages his own behavior and academic performance, the teacher may devote more time to teaching (Kazdin,

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1975; Rosenbaum & Drabman, 1979). Second, self-management skills are valued by our society (Fagen, Long, & Stevens, 1975; O'Leary & Dubey, 1979) and are considered to be "an integral part of the American democratic value system" (Smith, 1981, p. 119). Third, external behavior management programs (e.g., teacher-managed programs) work best when a teacher or parent (i.e., program manager) is available to observe student behavior and administer consequences. The external manager cannot always be present, and even when they are, some problem behaviors may go unnoticed. Therefore, students may learn to behave appropriately only when teachers are watching. Finally, research has demonstrated that self-management strategies may facilitate the generalization of behavior from training settings to nontraining settings and facilitate the maintenance of behavior over time (Rhode, Morgan, & Young, 1983). For these reasons, we believe that a self-management approach to behavior management is preferable to programs that are solely teacher-managed.

In the authors' work at Utah State University, the teacher's role in the management of behavior change programs has been deemphasized, and it has been demonstrated that effective behavior change programs can be managed by the students themselves. In the authors' approach, using self-management strategies to change behavior differs from externally-managed behavior change programs only in assigning responsibility for managing the procedures. The activities in this student self-managed program are similar to those in an externally-managed program, but in the self-management program, the student conducts many of the activities, whereas a teacher usually conducts the activities in an externally-managed program.

A second consideration concerns the important role played by self-monitoring and self-evaluation in self-management programs. Unless a person is (a) aware of a behavior that s/he wants to change, (b) knows how s/he wants to behave in the future (i.e., knows the performance criterion), (c) assesses his/her performance, and (d) evaluates how s/he did in relation to the criterion or standards for the behavior, it is unlikely that the self-management program will be effective. Therefore, self-monitoring and self-evaluation are built into this program as key components for self-management.

DESCRIPTION OF THE BEHAVIOR CHANGE PROCESS

Most effective behavior change programs, whether externally-managed or self-managed, include four phases: assessment, prescription of treatment, implementation of the treatment program, and evaluation of the program's impact and implementation of program modifications, if they are recommended). Figure 1 illustrates these four phases and some of the activities typically associated with each phase.

Any or all of the activities in this process can be conducted by teachers, parents, peers, or others in the target individual's environment. The intervention program becomes a self-management program when one or more of the activities are managed or conducted by the individual whose behavior is to be changed. The degree to which the program is self-managed increases as more of the activities are managed by the target individual. While virtually all of the activities can be conducted by the individual in his or her own behalf, external supervision is nearly always necessary in the beginning stages of the development of a self-management program. In fact, it may always be desirable for a teacher to maintain some level of supervision in order to ensure proper and consistent use of the procedures.

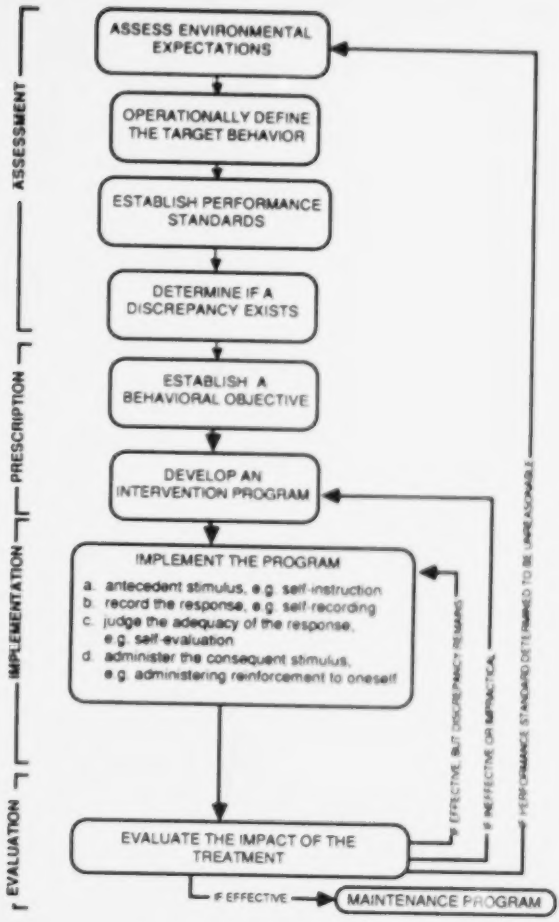

Figure 1. *A flow chart illustrating the four phases of a behavior change program*

Phase 1 — Assessment

The first activity in this phase is to assess the environmental expectations (e.g., teacher, school, community, parental expectations) for the target individual. Appropriate behaviors which an individual will be expected to exhibit are identified, along with those that are inappropriate and which will be discouraged or not tolerated. The level or amount of each behavior that will be accepted by persons in the environment is also identified. This level is a performance standard that can be determined by documenting the behavior of three or more students who are nominated by responsible adults as being successful in circumstances similar to those experienced by the target individual. The median performance level of these persons who are judged by the community to be capable serves as a normative, peer-referenced standard that is determined by a process known as social valida-

tion (Kauffman, 1985; Kazdin, 1982). Social validation may be used either to identify the focus of an intervention or to evaluate the importance of the impact of an intervention. Kazdin (1982) uses the term *social comparison* to describe the type of social validation that is concerned with identifying appropritate goals for interventions.

> The major feature of the social comparison method is to identify a peer group of the client, i.e., those persons who are similar to the client in subject and demographic variables but who differ in performance of the target behavior. . . .The behaviors that distinguish the normative sample from the clients suggest what behaviors may require intervention.

The environmental expectations (i.e., the desirable and unacceptable behaviors) are then specified as target behaviors along with acceptable performance standards or criteria. It is important that the target behavior is defined and the criterion set with such clarity that the target individual is able to perform the behavior at a criterion level that meets the performance standard.

Once the target behaviors are clearly defined and performance standards are established, a data collection procedure is developed. Baseline data are then collected on the target behavior to determine whether a discrepancy exists between the current performance of the individual (in the natural environment) and the established performance standard. Baseline data clarify the suspected performance discrepancy. Discrepancies between performance standards and student behavior may be categorized as either behavioral excesses or deficits. By behavioral excesses we mean that the problem behavior is occurring in excess of the performance standard (i.e., the behavior occurs too frequently, is lasting too long, is too intense, or should not be occurring at all). By comparison, behavioral deficits are defined as behaviors that are problematic because they fail to occur frequently enough, lack adequate intensity, do not occur with the appropriate topography or form, or do not occur under the expected conditions. If a performance discrepancy exists, move on to the prescription phase of the program.

Phase 2 — Prescription of Treatment

The first activity in this phase of the program is establishing a behavioral objective. Actually, this activity is virtually complete when we have documented a performance discrepancy, but it is important to view removing the discrepancy as the objective of the intervention. That is, eliminating the difference in performance between the target individual and those whose behavior is more adaptive or appropriate is the objective of the treatment program.

In an external teacher-managed behavior change program, it is not necessary for the person exhibiting the problematic behavior to agree with the treatment objective (at least in the initial stages of the intervention). In a self-management program, however, it is important that the target student accepts the behavioral objective as a personal goal. Since self-evaluation is a major aspect of this behavior change program, self-assessing (recording) behavior and comparing it to a preselected criterion are two critical tasks of the target individual. If a person has not accepted the goal of improving that particular behavior and reaching the performance standards, the self-evalution process will have limited therapeutic benefits.

Once the treatment objective has been established, an intervention program must be developed. With a teacher-managed behavior change program, some of the common elements that might be included in an intervention are the establishment of specific classroom rules, development of a feedback system, instructions, a reinforcement system (e.g., token reinforcement program), and/or procedures to eliminate inappropriate behaviors (e.g., the use of timeout, response cost). Some

self-management procedures that may be included in an intervention include self-instructions, self-recording, self-evaluation, scheduling of reinforcement for oneself, selecting one's own reinforcement, administering reinforcement to oneself, goal setting, and/or goal adoption.

In addition to selecting the self-management procedure, reinforcers should be selected and their contingent relationship with the performance of the target behavior by the person should be established. It may be awkward or difficult to have the individual manage his own reinforcers inasmuch as they may be obtained even though contingencies have been violated. Therefore, many self-management programs require the external management of reinforcers. Regardless of how they are managed, reinforcers should be selected only after thoughtful consideration. Some things to be considered are: How accessible (available) are the reinforcers? What is the potential strength or impact of the reinforcer? By whom are they to be managed and how will the management take place? And how do the reinforcers and the contingencies by which they are delivered fit into the individual's natural environment?

A final consideration in the development of a treatment plan is assigning the responsibility for elements of the program to individuals involved. It is not necessary for every activity to be managed by the individual whose behavior is to be changed in order for the program to be considered a self-management program. Some activities may be managed appropriately by an external agent. Ideally, self-management is developed best by a combination of teacher-managed and self-managed activities, with the program gradually becoming more self-managed as the responsibilities for the activities are shifted from the teacher to the student.

Phase 3 — Implementation of the Program

Program implementation usually begins with instruction. The classroom rules are stated and examples and nonexamples of each rule are presented to help students learn to discriminate behavior that is consistent with classroom rules from behavior that is not. By presenting both examples and nonexamples, a concept or a rule can be taught more clearly and misinterpretations may be prevented.

Next, the treatment program is discussed, and the reinforcement and/or punishment contingencies are stated. Most successful behavior change programs begin with frequent reinforcement of target behaviors or approximations and prompts or cues to encourage appropriate responding. Once the program is determined to be successful, prompts and cues are systematically faded and the reinforcers are delivered less often. After program objectives are met, the treatment program may be eliminated completely, or the behavior may be maintained with a simpler, more easily managed program.

The self-management program follows the same format; that is, while initially teaching the self-management skills to the student, the teacher is heavily involved but gradually turns more responsibility over to the student. Of course, the ultimate goal of this self-management program is for the students to maintain their use of the self-management skills.

Phase 4 — Evaluation

Part of any successful behavior change program is the collection of performance data that can be used to evaluate the effectiveness of the program. Performance data are usually summarized and plotted on a graph or listed in a table so that the data can be used to make decisions as to whether or not the program is effective.

The impact of the treatment program is evaluated by comparing the current performance data, collected during the implementation of the treatment program, to the performance standards. If a discrepancy no longer exists, the treatment is

presumed to have been effective. If a discrepancy is still noted, but substantial progress has been made and documented by comparing current performance to baseline or pretreatment performance, the program may also be judged to be acceptable and thus continued. If a discrepancy remains and if it is nearly as great as it was before the treatment was introduced (or even if greater now than before), the treatment is judged to be ineffective.

Next, a decision must be made to retain, modify, or terminate the treatment program. Figure 1 illustrates these decision options. If the treatment is deemed effective (i.e., discrepancy no longer exists), the program is terminated or responsibility for various elements of the program are shifted from teachers to the student and a maintenance program is employed. The maintenance program will ensure that behavior gains are not lost over time. The maintenance program systematically eliminates program components while reinforcing student behavior for continuing to self-manage his/her behavior. Several strategies that the authors have found to be useful are (a) occasional booster sessions in which the self-management procedures are reintroduced for short periods, (b) periodic performance probes conducted by the student or a teacher, or (c) periodic self-reports. For a complete discussion of generalization and maintenance of behavior, readers are referred to Rutherford and Nelson (in press) and Morgan and Jensen (in press).

If the program appears to have been successful but a discrepancy still remains, the program remains intact (possibly with minor modifications) until the treatment objective is achieved. If the program is judged to have been ineffective or if it is undesirable to continue it for other reasons (such as excessive cost or other impracticalities), the program is terminated in favor of another program. If the performance standard is determined to be unreasonable, it is adjusted and the process returns to the point of establishing a discrepancy with the new standard.

STUDIES VALIDATING THE SELF-MANAGEMENT APPROACH

Based on the four phases that together comprise a systematic approach to treatment of learning and behavior problems, the authors have developed and field tested a self-management program for behaviorally disordered adolescents; specific components of this program are discussed in Studies 1 and 2. Complete manuscripts describing these studies can be obtained from the first author.

This self-management program is designed for junior and senior high school students who exhibit learning and behavior problems such as acting out, disruptive noncompliant behavior, have excessive tardies and/or absences, academically fail classes, don't turn in assignments, and generally do poor quality academic work, if they do any at all. The program has been used with students placed in special education classes housed within regular public schools. The students participating in field tests have spent part of their school day in regular education classes.

Study 1 — Self-Management in a Junior High Setting

The investigation of self-management training in reducing the behavioral excesses (acting-out behaviors) of behaviorally disordered junior high-aged students was the purpose of a study reported by Smith, Young, Morgan, West, and Rhode, (1987). Students were taught to (a) evaluate and rate their classroom behavior against a standard established by the classroom teacher, (b) compare their self-rating with the teacher's rating of the student's behavior, and (c) select reinforcement in exchange for points earned for accurate self-ratings. Teacher ratings were gradually conducted less often as the students' rates of disruptive and

off-task behaviors decreased. The students continued to rate themselves and receive points for appropriate behaviors based on the self-ratings. Surprise ratings by the teacher occurred when the teacher felt that students weren't rating themselves accurately.

When students were successfully and consistently using the self-management program in the special education class with minimal teacher involvement, students were instructed to use the procedure in their mainstream classrooms. The regular classroom teacher was asked to rate the target student's behavior and then compare that rating with the student's self-rating at the end of each class period. Points earned in the regular classroom were exchanged for privileges, activities, and other rewards in the resource room the following day. The rating procedure and criteria used in both the special education and regular education classes is presented in detail in Study 2 (and in the original papers describing the studies).

Several important questions were answered in this study. First, it was shown that the self-managment program alone can function as a classroom management system. It was not necessary to use a separate behavior management program (such as a token economy) to bring the students' behaviors under control before implementing the self-management procedures. Second, the effectiveness of the self-management procedures was demonstrated with behaviorally disordered junior high-aged students in a public school setting.

The findings of this study showed that behavioral gains made by the students in the resource room (i.e., reduced rates of off-task and disruptive behaviors) were not observed in the regular classrooms. We viewed this as a failure to implement the procedures (an abbreviated version) in the regular classroom rather than a failure of the procedures to facilitate generalization. Regular education teachers had been asked to rate students' behaviors at the end of each class period; however, none consistently rated the students every day. The teachers said they were too busy or had forgotten, and the participants reported that they were too embarrassed to remind teachers to complete the evaluation forms. In general, teachers were either unwilling or unable to implement the procedures even though the requirements placed on the teachers' time were minimal. This problem seems to highlight the difficulties that may arise when secondary teachers are asked by special educators to help implement behavior change programs in their classrooms.

Study 2 — Self-Management with High School Students

A second study was conducted to examine an alternative generalization procedure in which peers were substituted for teachers in a matching self-evaluation strategy (Smith, Haws-Kuresa, Young, Morgan, & West, 1986). Nonhandicapped peers were trained to take over the rating and matching tasks previously done by teachers in the classroom. In addition to adding a peer component to the self-management procedures, the study investigated the effects of the procedures on a behavioral deficit (assignment completion). The training in Study 2 was organized into four phases: behavioral self-management, academic self-management, peer training, and peer-mediated self-management in the regular classroom.

Phase I — Behavioral self-management. Initial training in the self-management strategies took place in the high school resource room. The behavioral self-management component was introduced first. The resource teacher explained the classroom rules to the students and provided examples and nonexamples of each rule. Students were told that they would be rating their behavior on a 0- to 5-point scale and the ratings would be converted to a corresponding number of points (e.g., a rating of "5" was converted to 5 points). If the student's rating was within one point of the teacher's rating (either higher or lower), the student kept the

number of points s/he awarded him/herself. If the two ratings matched exactly, the student was awarded a bonus point. If there was more than a one-point difference (higher or lower) between the teacher and student ratings, no points were earned for that interval. The students exchanged their points for backup reinforcers (e.g., free time).

Resource room sessions lasted 45 minutes and were divided into three 10-minute intervals followed by 5 minutes during which students rated their behavior and matched their ratings with the teacher. Each day students were given a point card for use during their special education class (see Figure 2). The classsroom rules were printed on the back of each card. The teacher and the student inde-

BEHAVIOR POINT CARD

NAME_____ DATE_____

0 = Student's rating / = Teacher's rating

1st Rating:

0 1 2 3 4 5 Points _____
+ Bonus _____
= Total _____

2nd Rating:

0 1 2 3 4 5 Points _____
+ Bonus _____
= Total _____

3rd Rating:

0 1 2 3 4 5 Points _____
+ Bonus _____
= Total _____

Total points for 1st rating _____
+ Total points for 2nd rating _____
+ Total points for 3rd rating _____
Total = _____
Average rating (total : 3) = _____

Figure 2. *A sample of the behavior point card used in the initial phase of self-management training. Students circle their rating and the teacher marks his/hers with a slash. Ratings are matched and points assigned.*

pendently rated the student's behavior on a rating from 0 to 5. The student circled the score s/he thought described his/her behavior. Then the teacher marked the student's card with a colored pen by putting a slash through the appropriate number to indicate his/her award of 0 to 5 points for classroom behavior. The two ratings were compared and points given.

The criteria for the student/teacher ratings were as follows:

5 = **excellent** — Followed all classroom rules during the entire interval.

4 = **very good** — Minor infraction of the rules but followed the rules throughout the rest of the interval. No teacher warning regarding behavior allowed.

3 = **average** — Did not follow all of the rules for the entire interval, but there were no serious offenses. One teacher warning regarding behavior allowed.

2 = **below average** — Violated one or more rules to the extent that behavior was not acceptable but followed the rules part of the time. Two teacher warnings regarding behavior allowed.

1 = **poor** — Violated one or more rules almost the entire class period. Three teacher warnings allowed.

0 = **unacceptable** — Violated one or more rules throughout the entire interval. Four or more teacher warnings.

Matching with the teacher was faded systematically over several weeks. Initially students rated their behavior and matched their rating with the teacher's rating every 10 minutes. After 3 consecutive days with the rates of disruptive and off-task behavior below 20%, students were told to rate their behavior every 15 minutes and match their rating with the teacher's rating only twice during class. The matching was faded further when a student's rate of disruptive and off-task behavior was below 20% for 3 to 5 days. At the end of the fading procedure, the teacher and student matched only at the end of the class period.

Phase II — Academic self-management. After the behavioral matching component had been in place for approximately 3 days, the teacher explained the academic component of the self-management program. Students were taught to set daily academic goals in order to complete and turn in all assignments on time.

The strategy included teaching students to first *label* all of their assignments. They verbally stated specifically what the academic tasks were (e.g., 10 vocabulary words, 5 paragraphs to paraphrase, 10 comprehension questions to answer). Next they were taught to *sequence* all of the tasks; that is, they decided in what order they should do the assignments (e.g., first, look up the words in the dictionary; second, read one story; third, paraphrase 5 paragraphs; fourth, answer 10 comprehension questions). The third step in the goal setting strategy was to *divide* the work equally across the number of days they had to complete the assignment. To do this, students estimated how long it would take them to complete each task (e.g., paraphrasing takes longer than reading the story). Finally, students *set a daily goal* where they indicated the amount of work they would complete during the 30-minute independent work period.

After the students were taught the goal setting strategy, points for accurate goal setting were added to the students' point card (see Figure 3). Initially, students earned one point for each element in the goal setting strategy: labeling, sequencing, and dividing their academic tasks. A bonus point was awarded for completing all three steps. These points were added to the daily points students earned for appropriate classroom behavior and accurate matching.

The goal setting steps were removed from the point card one step at a time as students demonstrated mastery of each of the steps (approximately 5 consecutive days of earning points for accurately completing the step). For example, once

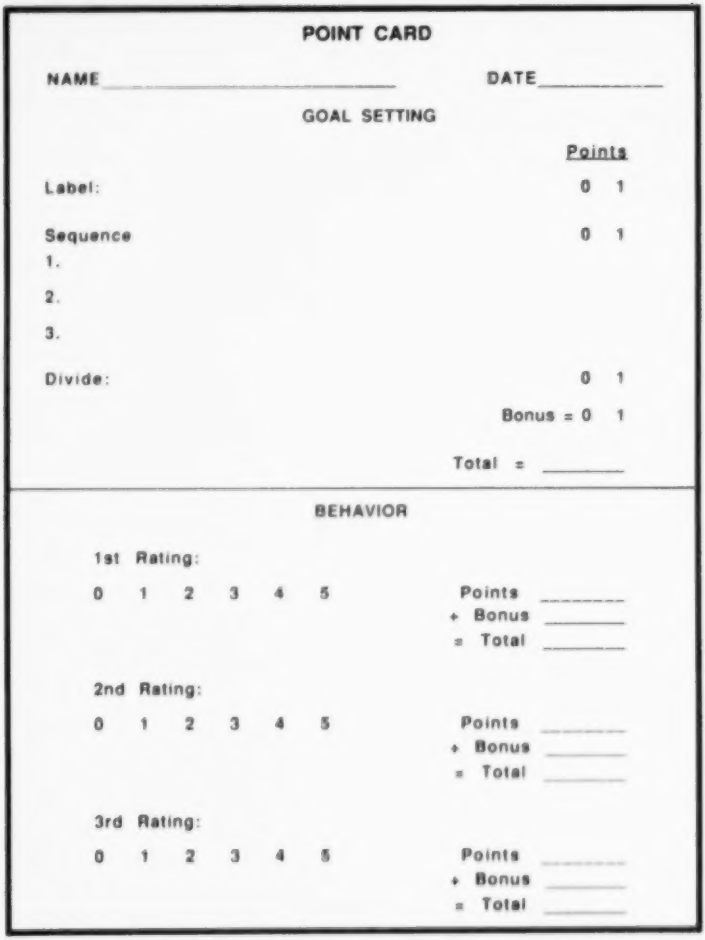

Figure 3. *A sample of the combined goal setting and behavior management point card used in Phase 2 of the self-management training*

students could successfully label, sequence, divide, and state a daily goal, the first step — labeling — was removed from the point card. The fading of the goal setting steps continued until all that was required of the students was to write a daily goal on their point card (see Figure 4). At this point in the program, students received 2 points for setting an appropriate goal, 3 points for meeting the daily goal, and 4 points when they turned an assignment in on time. Fading the number of times students were required to match behavioral self-ratings with the teacher's rating occurred at the same time the required number of steps from the goal setting strategy was reduced.

When students were only rating themselves once at the end of the class period and their rates of disruptive and off-task behaviors were below 20% on approxi-

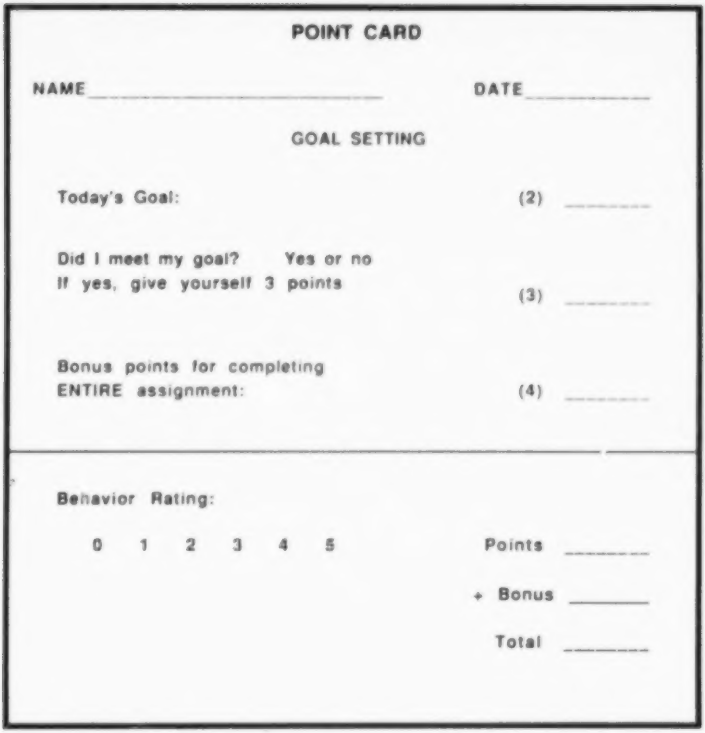

Figure 4. *A sample of a point card used after matching and goal setting components are faded out*

mately 3 consecutive days (the criterion established by the teacher), they were told that the teacher would no longer be matching with them daily. Students received the number of points they awarded themselves and teacher matches occurred on a "surprise" basis only.

In the final step of the fading procedure used in the special education setting, points were no longer made available for self-ratings of classroom behavior. However, points continued to be awarded for setting an appropriate daily academic goal, achieving that goal, and completing entire assignments on time (see Figure 5). The decision to reward the students for only academic behavior was based on the fact that low levels of disruptive behavior had already been achieved and it was expected that these could be maintained through academic contingencies alone.

Phase III — Peer training. While the initial self-management procedures were being conducted in the resource classroom, the resource teacher recruited and trained peers from the target students' regular classroom. Peers were selected on the basis of above average work in the regular classroom, age-appropriate social skills, and willingness.

Peers were taught the self-management procedures in a manner similar to that used for the target students. The program was explained to the peers and their

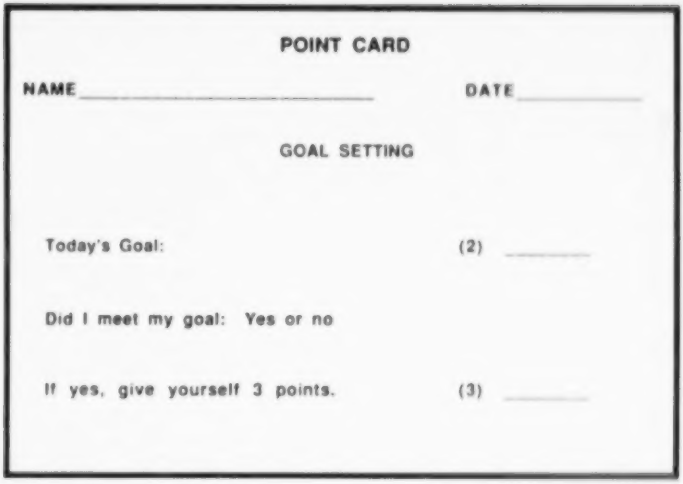

Figure 5. *The last point card used in the training sequence*

responsibilities were clearly outlined. The behavioral guidelines and matching procedures were explicitly defined. Peers were then instructed to practice the procedures by rating their own classroom behavior and then matching their rating with the resource teacher who came into the peers' classroom to rate their behavior during this phase of the training. Once peers accurately rated their own behavior, they took turns rating one another's behavior. To further validate, peer and teacher ratings were compared to data collected by independent observers. These comparisons demonstrated that the subjective ratings were valid and reliable.

Phase IV — Peer-mediated self-management in the regular classroom. The peer rating procedures were implemented in the regular classroom when the self-management program included only one rating per class period in the resource room. The peers' role in this program was essentially the same as the one previously performed by the resource teacher in the special education class (i.e., rating the target student's behavior and matching the ratings). Points earned by the students were exchanged at the end of the class period when the resource room teacher would come into the regular class to collect the point cards. The implementation of the academic goal setting did not occur in the regular classroom until the behavioral rating system with peers had been completely faded.

Results. The data from the second study indicated that the self-evaluation/teacher matching procedures were effective in reducing the disruptive and off-task behaviors of all participants in the resource classroom. Similarly, the peer matching procedures implemented in the students' regular classroom resulted in significant reductions in disruptive and off-task behaviors by all of the targeted students in the regular education setting. Behavioral gains in both the resource room and the regular class maintained even when points were no longer awarded for appropriate behavior.

The academic goal setting strategy was found to increase the number of assignments completed by all of the participants as well as increasing the overall percentage of those assignments that were correct. An interesting corollary was an improvement in the neatness rating of papers turned in following the implemen-

tation of the self-management procedures, although those behaviors were never specifically trained.

CONCLUSIONS AND APPLICATIONS

In both of the studies presented, students were taught to use self-management procedures to reduce the occurrence of behavioral excesses, that is, excessive acting out and disruptive behaviors. Other studies of self-management with disruptive students have initiated the intervention process by first establishing an externally managed token reinforcemment system (Drabman, Spitalnik, & O'Leary, 1973; Rhode, Morgan, & Young, 1983; Turkewitz, O'Leary, & Ironsmith, 1975). In contrast, the present studies eliminated this step and involved the students in self-management from the beginning. This approach, which was as successful in eliminating disruptive student behaviors as previous self-management investigations, has two specific advantages: (a) it eliminates one step in the teaching and fading process (i.e., the external reinforcement system), and (b) it makes the adolescent a part of the behavior change process from the very beginning of the intervention.

Rhode et al. (1983) demonstrated effective generalization from a special education to a regular education setting using a regular classroom teacher in the intervention. However, the Rhode et al. study was conducted with elementary-age students and the Smith et al. (1987) study indicated that at least some secondary teachers do not have the time or inclination to assist in a student self-management program. While this does not suggest that all teachers at the secondary level would not cooperate in a program designed to transfer the use of self-management procedures from special education to regular education settings, it is beneficial to the practitioner to know that peers are an acceptable alternative for facilitating the transfer of the self-management procedures to new settings.

The second study reviewed applied a self-management intervention to behavioral deficits (i.e., assignment completion). Students were taught to identify and label all of the required tasks in both their special education and regular English classes and then sequence the list of activities in the order that they thought they should be completed. The students then divided the activities to be completed into the available time and decided upon daily goals that must be accomplished in order to meet the deadline. This planning and scheduling skill is one that is commonly used by students in secondary schools who are academically successful. The procedure proved to be effective in that all of the students improved both the number of completed assignments and the accuracy of those assignments. The neatness of the students' work also improved.

Successful persons of all ages learn to self-evaluate. These successful persons evaluate their appearance, their social interactions, and their work performance on a daily basis. They use their self-evaluation to tell them if they need to modify their behavior. While this process is typically informal and may not require a great deal of conscious effort, it is an important self-management behavior of successful individuals. The aim of the programs discussed was to teach those skills to behaviorally disordered adolescents.

The authors believe that self-evaluation and self-management procedures have wide application in the treatment of behaviorally disordered adolescents. First, the procedures may be taught by a variety of professionals involved in the treatment process — for instance, in counseling or therapy sessions conducted by psychologists, social workers, or school counselors. They may be taught by special education or regular education personnel. Finally, parents may also be involved in the teaching of self-management skills to adolescents. Second, the self-management procedures may be used with many different behavioral excesses or behavioral deficits.

As a part of their research and development activities, the authors have developed an instructional manual to be used by professionals in the treatment of behaviorally disordered adolescents. The manual, *Teaching Self-Management Skills to Behaviorally Disordered and Learning Disabled Adolescents*, is designed to assist professionals involved in the intervention process in designing and teaching self-management skills to adolescents. The manual addresses procedures for both behavioral excesses and deficits. The procedures used in the manual have been researched and validated as effective practices. Many of the procedures have also been demonstrated to facilitate generalization of the skills from treatment settings to nontreatment settings. Assisting adolescents to control their own behavior through the use of behavioral self-management procedures is perhaps the ultimate of treatment goals. A copy of the manual is available from the first author.

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Integrating Vocational/Career Education into Special Education Programming for Emotionally Disturbed/Behaviorally Disordered Adolescents

Paul Zionts

There is little controversy regarding the need to expose adolescents to vocational/career education as part of their high school experience. This need is magnified when one considers the noncollegebound population, especially those who are enrolled currently in special education classes. And yet, the United States Office of Education (1979) reported that only 3% of those in special education classes were enrolled in vocational education programs. Further, the percentage had yet to increase 3 years later (U.S. Department of Education, 1982) despite the mandate of Public Law 94-142. Consequently, the estimate of 50 to 75% unemployment among the handicapped (U.S. Commission on Civil Rights, 1983) should be of little surprise.

There is much evidence that suggests a strong relationship between postschool employment and having had vocational/career education exposure during the school years (Hasazi, Gordon, & Roe, 1985; Mertens, 1986; Mertens, Satz, & Cox, 1982; Mithaug, Horiuchi, & Fanning, 1985). Interestingly, the actual existence of such programming is rare. A review of special education programs in high schools might lead one to believe that the majority of students who receive such exposure are those labeled mentally retarded. It is for the mentally retarded population that school curricula focus on such areas as food service, janitorial services, hospital attendants, and the like, or on sheltered workshop experiences for the more severely handicapped (Wehman & Barcus, 1985). The vocational curriculum for the emotionally disturbed/behaviorally disordered is notable in its absence.

A review of college textbooks in the area of emotional disturbance/behavioral disorders reveals that few devote any serious space to the vocational education of this population. The research has indicated that teachers either believe that their own vocational preparation is weak (Benz & Halpern, 1986) or that others have found them to be inadequately trained in this area (Brolin & D'Alonzo, 1979; Clark, 1984; Malouf & Taymans, 1982).

Research with regard to the impact of vocational/career education on the emotionally disturbed/behaviorally disordered population has been incredibly sparse. Fardig, Algozzine, Schwartz, Hensel, and Westing (1985) investigated the postschool adjustment of rural mildly handicapped subjects and found only two had been labeled emotionally disturbed. Similarly, Mithaug et al. (1985) found their behaviorally disordered population to be underrepresented among those who had enrolled in high school special education programs.

Vocational education in the schools, and especially in classrooms for the emotionally disturbed/behaviorally disordered, has lead a second class citizen exist-

ence. The educational programs for emotionally disturbed/behaviorally disordered students have focused upon academics and perhaps on the remediation of maladaptive behaviors with some attention to affective growth. It seems that there is a need to take a step back to evaluate the purpose of a high school education for these students.

The purpose of this article is to examine operationally the role of vocational/career education for emotionally disturbed/behaviorally disordered adolescents. It is an important facet of their education that has not been given the attention it deserves, whether it be the inclusion of vocational objectives in their IEPs or instruction in their classrooms. The need for educators to focus upon their own attitudes toward this curricula will be examined with particular emphasis on bringing vocational education and career exploration into special education classroom settings.

Defining Vocational/Career Education

It is important to consider vocational/career education in practical school terms. Simply "getting a student ready for the workplace" is probably shortsighted, because it may imply only teaching students some specific technical (food preparation, clerical) or job readiness (application completion, resume writing) tasks. Rather, vocational/career education should include consideration of the "various roles (family member, neighbor, community member), various environments (home, neighborhood, community), and innumerable events (home living, mobility, consumer activities, interpersonal interactions, work activities)" that high school graduates are expected to assume (Clark, 1980, p. 12).

Further, vocational/career education is something that isn't "picked up" incidently as one progresses through school. The topics above are taught in many elementary curricula. The emphasis, however, on the aspect of noncollege careers may not be present. Therefore, when students reach the middle school or high school, the natural extension of these topics is rarely found with the natural extension of the academic classes.

An easy and inaccurate transition here would be to suggest that schools should be training students for noncollege jobs by teaching them specific job skills. Market demands can shift dramatically and to train students for certain jobs as early as 10 years before high school graduation might be an ill-conceived goal.

There needs to be a distinct purpose for the integration of vocational/career education into secondary classes for the emotionally disturbed/behaviorally disordered. This integration involves redefining or defining for the first time the purposes and goals for the educational programming for this population with consideration of their entry into adulthood. Although writing about the learning disabled population, Okolo and Sitlington (1986) make a strong case that the "mildly handicapped and learning disabled in particular are unemployed or underemployed for three basic reasons: (a) lack of interpersonal skills, such as work habits and attitudes, and social communication skills; (b) lack of job-related academic skills; and (c) lack of specific vocational skills to perform more than entry-level personal service jobs" (p. 143). This type of integration does not define a vocational/career education program as being comprised mainly of separate units done in independent seatwork (workbook) fashion.

Emotionally disturbed/behaviorally disordered students, by definition, are in long-term need of emotional, behavioral, and/or social skills curricula (Gresham, 1982). For these students to develop the needed skills, specific outcome goals must be assumed. If special educators endeavor to adapt Okolo and Sitlington's (1986) above-stated goals — rather than the simplistic "graduation from high school" as *the* goal —then it would seem that one of the first places for such goals

to be discussed is the multidisciplinary team meetings where the IEPs are developed.

Long-Term Goals for Emotionally Disturbed/Behaviorally Disordered Students

Special education has long held a jargon of its own. One term that is often used in planning a student's program is *long-term goals*. Interestingly, when special educators speak of long-term goals, they tend to refer to a time period of one school year. That is, Johnny will be able to master a specific skill by June. When regular educators and parents speak of long-term goals for their own children, they usually refer to a period of years. The long-term goal of many parents of schoolage children is not the content that will be attained in any given year, but instead, possible "life" goals. In other words, the goal of many parents for their children might be a specific career or college. Even given this definition of a long-term goal, special educators are more likely to cite "graduation from high school" as their aim for their students.

Graduation from high school is a worthy goal for many public school students. The prospects of a high school diploma suggest that young adults may enter a job market or college with the skills that accompany finishing 12 years of school. That does not seem to be a realistic supposition for emotionally disturbed/behaviorally disordered students who have completed their high school in special education programs, especially those who receive little or no career or vocational exposure.

Special educators need to reevaluate their conceptions of long-term goals (Cawley, 1977; Sabatino, Allen, Paulson, & Sedlak, 1984). Post-high school expectations of jobs and life roles must be examined during the IEP meetings as early as the elementary school years. The outgrowth of this reevaluation will, hopefully, establish a new focus for programming for adolescents with emotional disturbance/behavioral disorders.

Cobb and Phelps (1983) examined 53 IEPs of educable mentally retarded and learning disabled high school students (representing 25% of those in special education in a large midwestern city) and found 49% of these IEPs had at least one vocational goal. Of these, 64% were targeted for the educable mentally retarded population and 24% for the learning disabled students. Only 30% of the IEPs had any vocational education assessment data regarding levels of performance. Not surprisingly, there was little vocational education involvement during the IEP process.

An example of the type of vocational involvement that deserves attention and has been ignored focuses upon the fact that the vast majority of students in special education programs live at home after graduation (Mithaug et al., 1985; Wehman, Kregel, & Barcus, 1985). There are specific skills that should be taught to those in that type of living arrangement. Most often, those who plan long-range goals make the faulty assumption that most of these students will be living in some sort of independent or semi-independent situation.

Wehman et al. (1985) suggested the following additions to the IEP process that would enhance the integration of vocational education concepts into the programming for special education:

1. Orient parents to the community agencies providing postschool services to handicapped individuals.
2. Familiarize parents with the specific responsibilities of special education, vocational education, vocational rehabilitation, and adult service programs in the vocational transition process.
3. Prepare parents to work with the various agencies to develop transition plans and to apply for future services. (p.31)

Changing Attitudes and Expectations

Before attempting to bring vocational education into special education (and vice versa), the attitudes and expectations of both types of educators must be altered. Bernstein and Karan (1979) argue that the needs of special education students are not being met in vocational education programs. The value of meeting the individual needs of this population is not being embraced. Minner (1982) found that regular education vocational education teachers in the secondary schools had significantly lower expectations for the mentally retarded and learning disabled who might be mainstreamed into their settings. A subscale that detailed behavioral and social expectations indicated that the populations were deemed to have lower possibilities for achievement. Again, it is significant that emotionally disturbed/behaviorally disordered students were not examined in this study.

Changing the attitudes of vocational education teachers toward the handicapped was the focus of a study by McDaniel (1982) who examined four interventions and found three that were very effective: (a) vocational special needs workshops, (b) graduate courses in vocational special needs, and (c) undergraduate vocational special needs courses. An "infusion" method of giving special needs information during regular education classes had little effect on the teachers' attitudes. This research argues strongly for the need for direct exposure and information in order to help educators understand the instructional needs of handicapped learners.

Another major obstacle facing the inclusion of vocational/career education in the training of special educators is the attitude of planners and program specialists that the *ideal* model must exist. For example, a lack of interagency cooperation is an oft-cited reason for the failure of vocational programs for the handicapped (Bernstein & Karan, 1979; Greenan & Phelps, 1982). While there may be little doubt that cooperation enhances the chances for success (as it does in any special education programming), there are many modifications that the special educator can make to address the post-high school needs of the students.

Reexamining Special Education Curricula

Many special educators perceive vocational education as a separate curriculum that is usually taught be "shop teachers" either within the public school or as part of a separate technical school. Recently, vocational education kits or workbooks have surfaced in special education classrooms, and if time is scheduled, a mini-lesson might occur. In other words, vocational education has been isolated from the regular academic routine of the classroom. This same criticism has been leveled against vocational education programs in their lack of integration with academics (Bottoms & Copa, 1983). This is exacerbated in special education by the problems inherent to the utilization of current popular placement: the resource room.

The resource room, certainly the most common placement for mildly handicapped special education students, has different configurations in each of the elementary, middle, and secondary school settings as well as among those settings. In the elementary schools, the teachers most often teach academic skills such as reading and mathematics. The students arrive from the regular education settings and are either placed in a small group or are given one-to-one instruction. Due to the diversity of the skills of the students, there may be up to five or six different reading lessons occurring at any given moment. Middle and secondary schools may have diverse skill groups and content groups simultaneously being "taught" their lessons. Again, the only manageable recourse for the teacher is to

"divide and conquer", unloading large portions of seatwork and providing tutorial services when needed.

Consequently, when one reviews the curricula of most middle and high school special education programs, one would be hard pressed to find the emotional and/or behavioral programming necessary to remediate the problems that precipitated the emotionally disturbed/behaviorally disordered students being referred to the resource room, and as importantly, those that are necessary for success in future employment. It would seem to be difficult for any social skill, affective, or behavioral curriculum to be effective when it is always to be treated as a separate entity from the other skills and content necessary for one to be a good student. And, it is not ironic that it is those skills and content necessary for one to be a good student that also are needed to be a good employee.

Many emotionally disturbed/behaviorally disordered secondary students are lacking the social and learning skills that would allow them to function adequately in the classroom or in the job market. There are currently many effective programs designed to teach students these skills (see Goldstein, Sprafkin, Gershaw, & Klein, 1980; Hazel, Schumaker, Sherman, & Sheldon-Wildgen, 1981; and Stephens, 1978). The problem arises after the lessons are taught, when students are placed back into a situation where they do not have the opportunity to practice the newly acquired skills.

Modifying Special Education Programming

In order to include adequately vocational education programming in the special education classroom, both a model and specific strategies to implement the model should be examined. Most vocational education/special education models (Hursh, Shrey, Laskey, & D'Amico, 1982; Sedlak, Johnson, & Steppe-Jones, 1985; Vautour, Stocks, & Kolek, 1983) list the need for adequate assessment of current skills, both personal and interpersonal. This area, and the remediation of such, are readily covered in most currricula for the emotionally disturbed/behaviorally disordered. Integral to the content is the exploration of feelings, behaviors, reactions to authority, peers, and so forth. Such an emphasis implies group work and the enhancement of communication skills.

One area that incorporates academic skills and communication skills is moral development (Kohlberg, 1978). Moral dilemmas — whether they be hypothetical, real life, school, or job related — allow students to think about issues that affect them (or will affect them), to listen to how others think about the issues, and then perhaps accommodate and/or assimilate the thinking of others (Zionts, 1985). Career goals, obstacles to those goals, and objectives for meeting those goals may all be discussed under the moral development format. Hopefully, this allows for a meshing of relevant content beyond that of workbooks and sheets, thus allowing students the opportunity to practice the skills learned in the discussions.

Within a curriculum that encourages discussions, there are many practical techniques that can be incorporated such as the *shadowing* experience where students "follow" adult workers throughout the day (Ellington & Winkloff, 1982). Also, role playing has been employed that allows both assessment (Richter-Stein & Stodden, 1981) and teaching (Warrenfeltz et al., 1981).

Future Directions

The research on post-high school handicapped students reported above is not optimistic. What is noteworthy is that the populations examined were learning disabled and mentally retarded rather than emotionally disturbed/behaviorally disordered. Given the areas where these researched groups fell short, social skills

and life adjustment, it would not be difficult to imagine how the emotionally disturbed/behaviorally disordered groups would fare in comparison. There is a major need for research that includes the emotionally disturbed/behaviorally disordered population.

There is a lack of vocational/career programming for the emotionally disturbed/behaviorally disordered in the public schools. Grosenick and Huntze (1980) through their national needs assessment suggest that of the approximate 2% of the special education students that are currently being served by vocational education programs, the numbers that are emotionally disturbed/behaviorally disordered are "miniscule". If that is an accurate portrayal, then it is a situation that should be remedied. A model was presented in this article that would require a minor adjustment in the traditional programming for the emotionally disturbed/behaviorally disordered, one that would have a program overview taking into consideration the vocational future of the students.

The infusion of vocational/career education does not suggest that all tasks must be job oriented. That is a mistake that currently permeates special education classrooms where the teaching of specific academic skills has replaced interesting information that makes up the general public school curricula. The modifications needed should focus upon meeting attitudinal (cognitive and affective) objectives of possible careers rather than a focus upon mechanical (skill) objectives.

The intention of this article is to present a serious problem that has been ignored in the research and literature on the emotionally disturbed/behaviorally disordered. This lack of attention may be due to various reasons, perhaps to the belief that the simple inclusion of social skills/behavioral/emotional programming is sufficient in addressing the problem. The author suggests that the connection must be more obvious for educators and ultimately their students.

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Behavioral and Learning Characteristics of Childhood and Adolescent Depression: Implications for Special Educators

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ABSTRACT

Adolescent depression represents a growing mental health problem. Although there is a conspicuous lack of data on depression in special education populations, existing prevalence estimates suggest that between 4 and 25% of handicapped students experience severe depression. The purpose of this article is to review learning and behavioral characteristics of depression in nonhandicapped, psychiatric, and special education populations. Directions for future research on depression in special education students are explored and identification and treatment issues for special educators are presented.

Childhood and adolescent depression represents a growing concern to school personnel. Epidemiological investigators have estimated that between 5 and 13% of students attending regular classes manifest severe depressive symptoms (Friedrich, Reams, & Jacobs, 1982; Reynolds, 1986; Teri, 1982). These investigators provide strong evidence that depression is a major mental health problem. Reynolds (1985) suggested that clinically depressed children and adolescents are in the schools and in need of service.

Within the past decade, clinicians and researchers have shown a growing interest in the examination of depression in children and adolescents. Researchers have also examined correlates of depression in children and adolescents (e.g., Maag & Rutherford, in press; Reynolds, 1985). This information is important for broadening our understanding of depression and provides insight into potential etiological bases as well as the impact of this disorder upon the individual (Reynolds, 1985). Clinical and school-based interventions have recently been developed for depressed children and adolescents (Butler, Miezitis, Friedman, & Cole, 1980; Frame, Matson, Sonis, Fialkov, & Kazdin, 1982; Reynolds & Coats, 1986; Schloss, Schloss, & Harris, 1984).

Intuitively, it could be expected that extensive research data would exist on depression in students receiving special education services. Depression is one of the five criteria defining eligibility for special education services of seriously emotionally disturbed children and adolescents (*Federal Register*, 1977). Relationships between academic underachievement and depression have been well established (Colbert, Newman, Ney, & Young, 1982; Sacco & Graves, 1984; Straus, Forehand, Frame, & Smith, 1984; Tesiny & Lefkowitz, 1982). Furthermore, depression has been found in children and adolescents exhibiting a wide range of delinquent and hyperactive behavior (Brumback & Weinberg, 1977; Chiles, Miller, & Cox, 1980). Learning disorders and disruptive and antisocial types of behavior frequently result in students being referred for special education services (Kauff-

man, 1985). Because depression is a criterion for defining eligibility for seriously emotionally disturbed class placement, and given the relationship between depression and learning disorders and behavior problems, the paucity of research on depression in special education students is cause for concern.

Recent investigations of depression in children and adolescents would support special educators focusing more attention on this disorder. Importance of special educators' ability to identify and treat depression is further indicated by the consistent relationship found between depression and suicide (Cohen-Sandler & Berman, 1980; French & Berbin, 1979; Shaffer & Fisher, 1981). Addressing these issues requires special educators to conduct considerably more research than is currently being done with regard to depression in special education populations.

This article provides special educators with a brief overview of learning and behavioral characteristics associated with childhood and adolescent depression. Because few studies exist examining depression in students receiving special education services in public schools, studies examining depression in children and adolescents with learning and behavior problems receiving psychiatric treatment and those who have been referred for educational evaluations to clinics will be reviewed. Also, the few studies examining depression in students receiving special education services through their public schools are reviewed. The purpose of this article is to draw attention to depression as a condition of which special educators need to be aware, to point out methodological flaws with research on depression in special education populations, and to suggest directions for future research.

LEARNING AND BEHAVIOR CHARACTERISTICS OF CHILDHOOD AND ADOLESCENT DEPRESSION

There has been a long-standing interest in the study of learning and behavior problems in depressed children and adolescents. A critical question is whether learning deficits lead to depression, or whether depression leads to learning deficits. A distinguishing characteristic of some depressed students is that they perform well academically, but as depression develops, school performance declines (Maag & Rutherford, in press). As depression worsens, adolescents may begin to exhibit perfectionistic tendencies (Friedrich et al., 1982) which may surface as intensified efforts on school work. Finally, some severely depressed adolescents who decide upon suicide as a means of ending their suffering may often appear happy because of the relief felt from finally deciding upon a course of action and their school performance may actually improve (Hawton, 1986).

Behavioral disorders (e.g., hyperactivity, impulsivity, aggression, delinquency) have also been the focus of considerable research. Kovacs and Beck (1977) suggested that many problematic behaviors mask underlying depression. These children and adolescents may not express their depression directly and it must be inferred from depressive equivalents. This position argues that depression exists in children in the sense of an internal unobservable pathological entity, but its external manifestations are altered or masked, and therefore many manifestations of behavioral disorders in children are assumed to be depressive equivalents. Although the perspective of masked depression has been questioned (Kaslow & Rehm, 1983), behavioral disorders have been found concomitant to depression in many children and adolescents.

Learning Difficulties and Intellectual Ability

There is a growing consensus that many learning difficulties, and particularly academic underachievement, are related to depression. This is of major impor-

tance to special educators who spend a considerable amount of time assessing and treating students with learning problems. It is important to remember, however, that most of the research on academic underachieving has been conducted on children and adolescents attending regular classes. This limits generalizability of findings to special educators, although the breadth of research warrants closer examination.

Colbert et al. (1982) examined school records, teachers' comments, and academic achievement scores of 111 children in regular classes who had been diagnosed as depressed; 71% were significantly underachieving one year or more below grade level in one or more academic areas. Strauss et al. (1984) had teachers rate classroom academic performance of those students who received extreme scores on the Children's Depression Inventory. Students who scored in the clinically depressed range were rated by their teachers as doing less well academically than their nonclinically depressed peers.

Tesiny, Lefkowitz, and Gordon (1980) reported moderate but significant correlations of -.23 and -.27 between depression and standardized reading and math scores, respectively, on a sample of nonhandicapped children. A study by Reynolds and Coats (1982, cited in Reynolds, 1985) also found moderate but significant correlations of -.24 and -.26 between grade point average and two depression inventory scores in a sample of 675 adolescents attending public school. Further analysis revealed that depressed students had lower grade point averages than nondepressed students. A similar relationship was found by Reynolds and Miller (1980, cited in Reynolds, 1985), a correlation of -.25 between grade point average and depression inventory scores of 642 students.

Lefkowitz and Tesiny (1985) gathered data on various indicators of cognitive functioning and depression from 3,020 elementary school children enrolled in regular classes. Significant correlations of -.36 and -.43 were obtained between depression and teacher-rated work-study habits for boys and girls, respectively. Depressed girls also scored lower on standardized reading and math achievement tests. Depressed boys had lower IQ scores than their nondepressed peers. Sacco and Graves (1984) also found depressed children scored significantly lower on the vocabulary subtest of the WISC-R than nondepressed controls.

These findings of an inverse relationship of depression to cognitive functioning have been substantiated by other researchers (Kaslow, Tanenbaum, Abramson, Peterson, & Seligman, 1983; Lefkowitz & Tesiny, 1980; Schwartz, Friedman, Lindsay, & Narrol, 1982). However, not all researchers support these findings (e.g., Kashani, McGee et al., 1983). One caveat is that no causal sequence can be determined from correlational data. Thus, whether poor academic performance is the antecedent or consequence of depressive symptoms remains speculative. It is possible that a variety of environmental stressors may be potentially responsible for poor academic performance. Only longitudinal research can explore causal implications of various academic correlates associated with depression. However, information concerning the relationship between academic underachievement and depression obtained through correlational techniques provides a set of factors concomitant to depression which should not be ignored.

Behavioral Disorders

A considerable amount of research on depression and behavioral disorders is correlational (Reynolds, 1985). Research conducted with "normal" children and adolescents, however, must be interpreted cautiously. While it is likely that relationships exist, many depression scores and teachers' ratings of behaviors, for example, may be below levels of clinical pathology. Nevertheless, relationships between depression and behavior problems in normal populations provide impor-

tant information to educators and establish standards by which other students may be compared.

Leon, Kendall, and Garber (1980) had teachers complete the Conners' Teacher Questionnaire for 138 depressed and nondepressed third through sixth grade students attending regular classes. Depressed students were rated as manifesting a significantly greater frequency of behavior problems than nondepressed students. In this sample, younger students and males of all ages that were depressed were rated as exhibiting a greater frequency of conduct problems than older depressed females. However, these older depressed females also manifested more conduct problems than nondepressed females. Jacobsen, Lahey, and Strauss (1983), in their study of normal children, found that both boys' and girls' depression scores were significantly related to teacher ratings of conduct problems.

Depression has been considered a significant problem in delinquent populations (Offer, Marohn, & Ostrov, 1979). Kashini et al. (1980) found a high rate of depression among delinquents. Chiles et al. (1980) studied 120 adjudicated adolescents; 23% were diagnosed as depressed based on the Research Diagnostic Criteria (RDC). Depressed delinquents were found to have serious difficulty controlling their behavior within the school environment, following rules, and achieving passing grades. They also had severe problems relating to their parents and had run away. Their destructive behavior had been aimed at both property and other persons. Although nondepressed delinquents engage in similar behaviors, viewing conduct disorders in some youth and adolescents as symptomatic of depression and treating the depression may prevent further delinquent episodes from occurring.

In addition to engaging in acting-out behaviors, Chiles et al. (1980) found that depressed delinquents had more serious drug and alcohol problems than did nondepressed delinquents. Depressed adolescents missed more school due to drug- and alcohol-related difficulties. They were also arrested more frequently for drunk and disorderly conduct than other adolescents. These substance abuse problems are consistent with the depressed adolescents' statements that they self-medicate when they feel depressed. These data suggest an overlap between drug and alochol problems in depressed adolescents similar to that postulated for some depressed adults (Keeler, Taylor, & Miller, 1979; Schuckit & Morrissey, 1979).

Depression has also been related to social skills deficits in "normal" populations. Vosk, Forehand, Parker, and Rickard (1982) found that unpopular children were rated by their teachers as having significantly greater behavior problems than popular children, and were also more depressed as measured by the Children's Depression Inventory than their popular peers. It should be noted, however, that mean depression scores of the unpopular children were below the depression cutoff score suggested by Kovacs (1983). Lefkowitz and Tesiny (1985) had teachers rate the social behavior of 3,020 normal elementary school children. Prevalence of depression was 5.2%. Depressed students' classroom social behavior and work/study habits were rated by their teachers as significantly worse than their nondepressed peers.

Of particular concern to special educators is the relationship between depression and school phobia. School phobia was initially thought to be a symptom of masked depression (Cytryn & McKnew, 1974; Glaser, 1967; Hollon, 1970). Although this view is being questioned, researchers have found depressive symptoms in a number of school phobic children and adolescents (Baker & Wills, 1978; Gittelman-Klein & Klein, 1973; Waldron, Shrier, Stone, & Tobin, 1975). Tisher (1983) reported on an unpublished study conducted in Australia in 1970 which found a group of school phobic children to be significantly more depressed than a

control group of school attenders. Robbins, Alessi, Yanchyshyn, and Colfer (1983) found that three out of six adolescents referred for treatment for school phobia were depressed.

Although these studies are suggestive of a variety of behavioral disorders associated with depression, a major limitation is frequent reliance on "normal" populations. This limits generalizability of data to handicapped children. Considerable research, however, has been conducted with depressed child and adolescent populations receiving psychiatric treatment and/or referred to diagnostic clinics for learning and behavior problems. These children may more closely approximate students receiving special education services in public schools. Many children and adolescents are referred for special education class placement from psychiatric units or evaluation clinics (Forness, in press). Therefore, information gathered from studies examining children and adolescents in these settings has direct implications for special educators.

DEPRESSION IN PSYCHIATRIC AND CLINICAL POPULATIONS

A considerable amount of research has been conducted examining behavior and learning disorders in children and adolescents who have been diagnosed as depressed according to RDC/DSM-III or other psychiatric criteria (e.g., MMPI-D). These children and adolescents are frequently referred for psychiatric or outpatient treatment. In an early and oft-cited study, Weinberg, Rutman, Sullivan, Penick, and Deitz (1973) found that 45 of 72 children ages 6 to 12, who were referred to an educational diagnostic clinic for behavior and/or learning problems, met their criteria of depressive disorder. Brumback, Jackoway, and Weinberg (1980) later found that 62 of 100 consecutive referrals to an educational and diagnostic center evidenced childhood depression.

These studies should be interpreted cautiously because of several methodological weaknesses limiting generalizability to other special education populations. The relatively small sample size in both studies and the subjective nature of their depression criteria should be considered. Also, although learning and behavior problems were noted in depressed subjects, no specific defining criteria for "learning disabilities" or "serious emotional disturbance" were provided, such as that used by federal, state, or local agencies to label students eligible for these services. Therefore, these studies by Weinberg, Brumback, and colleagues add little knowledge of depression of students currently receiving special education services. Although similar criticism could be leveled against studies conducted in psychiatric settings, they generally provide more specific information, especially in regard to depression and conduct disorders.

Behavioral and Conduct Disorders

Carlson and Cantwell (1980) examined depressive symptoms and behavioral disorders in 102 children aged 7 to 17 years seen for evaluation in a children's outpatient clinic; 16% of the children who met DSM-III criteria for depression also met DSM-III criteria for other behavioral disorders — most often attention deficit disorders (hyperactivity), conduct disorders, and anorexia nervosa. The authors suggested that these are problems that most often brought the children to psychiatric attention but that divert attention away from concomitant depression. The majority of misdiagnosed depression fell into the category of unsocialized aggressive or adjustment reactions. Carlson and Cantwell also pointed out two differences between the behavior problems of children who are simply depressed and those who had diagnoses of both depressive and behavioral disorders. In children with depression, behavior problems were seen as less severe and occurring after

the onset of depression. In children with both diagnoses, behavior problems were chronic and more severe.

Other researchers have examined conduct disorders in children and adolescents diagnosed as depressed. Mezzich and Mezzich (1979) noted conduct disordered behaviors such as restlessness, desire to run away, and aggressiveness on the MMPI protocols of depressed adolescent psychiatric patients. Puig-Antich (1982) reported that of 43 boys with major depression, 37% also fit DSM-III criteria for conduct disorder. Kazdin, Esveldt-Dawson, Unis, and Rancurello (1983) also found a substantial number of psychiatric inpatient youth with a dual diagnosis of depression and conduct disorder. Kazdin and colleagues also reported that depressed children were rated as more aggressive than were nondepressed children. Connell (1972) similarly found antisocial behaviors to be prevalent in depressed child and adolescent psychiatric patients.

Brumback and Weinberg (1977) found that of 223 depressed children referred to two educational diagnostic clinics, 117 were also diagnosed as hyperactive. Hyperactivity was viewed as "a symptom" of various behavioral disorders, including childhood depression (p. 249). These researchers also suggested that a variety of behavior problems can be reduced by proper diagnosis and treatment of depression. These studies, taken together, are suggestive of a coexistence of behavioral and conduct disorders in depressed children and adolescents. Although not investigated to the extent of behavior disorders, researchers have begun examining learning disorders in depressed children and adolescent psychiatric in- and outpatients.

Learning Disabilities

Brumback and Staton (1983) proposed an interesting theory regarding endogenous (genetically or innately determined) depression and learning disabilities seen in children and adolescents. These authors hypothesized that lateralized cerebral dysfunction in children is sometimes associated with specific clusters of cognitive deficits that impair learning. Right hemisphere learning disabilities are viewed as being etiologically related to childhood endogenous depression. They also speculate that left hemisphere learning disabilities may be worsened by depression. Although biological basis of endogenous depression has been established (Matussek, Soldner, & Nagel, 1981; Risch, Kalin, & Murphy, 1981; Siever, Insel, & Uhde, 1981), specific biological causes of learning disabilities are poorly understood (Gerschwind, 1979; Zeifman, 1979). Presently, the biological association between these two conditions remains speculative. However, the tantalizing nature of this hypothesis and established relationships between depression and academic underachievement have prompted researchers to examine relationships between learning disorders and depression.

Cantwell and Baker (1982) studied depression in 600 children aged 2 through 16 referred to a community clinic for speech, language, and/or learning disorders. The majority of children in the sample (58%) had a disorder involving both speech and language; 17% of these children suffered from a depressive disorder. Of the learning disabilities identified, the most frequently occurring type was mixed specific learning disorder affecting 4% of the sample. Specific reading disorder was the second most commonly occurring learning disorder and affected 2% of the sample. Of the children with a learning disorder, 20% also suffered from a depressive disorder.

Certain features of major depressive disorder, such as low self-esteem, are said to be common among learning disabled children (Gardner, 1971). Kashani, Cantwell, Shekim, and Reid (1982) found significantly more preexisting reading and arithmetic difficulties among children with major depressive disorder than among

those with other diagnoses in a series of 100 children admitted to a community mental health clinic.

Colbert et al. (1982) investigated learning disabilities as a symptom of depression in 282 children aged 15 and under admitted to a family psychiatric unit; 153 (54%) children were identified as depressed. Most children (153) obtained intelligence test scores in the normal range; and 79 (71%) children previously in regular class placement were significantly underachieving one year or more below grade level in one or more academic areas in relation to expectations based on their intelligence and grade placement. Despite the large number of depressed underachievers, only 11 (7.2%) of those 153 children were diagnosed as having specific learning disabilities. However, 53 children were considered by previous teachers or previous psychoeducational testing to have learning disabilities.

Forness (in press) studied a sample of 185 inpatient and 406 outpatient children 7 to 14 years old at the UCLA Neuropsychiatric Institute; 111 outpatient and 36 inpatient children suffered from various depressive disorders. Learning disabilities were present in 23% of the outpatient depressed sample. Forness suggested that "the combination, however, of either a learning disability or a related behavioral difficulty and depression was characteristic of nearly 3 out of every 5 subjects in this sample" (p. 18). The children in the outpatient sample were largely attending regular classes prior to treatment but subsequently received special education services upon their return to public school. Forness further suggested that almost a third of patients suffering from depression without concomitant learning or behavioral disorders required some form of special education. Inpatients with depression and concomitant learning and/or behavioral disorders tended to be placed in more restrictive settings after treatment.

The Forness study provides new insight into the incidence of expression and concomitant learning problems experienced by these children and adolescents. In addition, these findings accentuate the alarming lack of attention and services public schools provide to depressed students, whether or not they have concomitant behavior and/or learning problems, prior to these conditions first being identified and treated by outside agencies. Schools in general, and special educators specifically, need to be more aware of these students' needs. Unfortunately, little research has focused upon depressed special education populations receiving services in public sschools. Part of the problem may be, as Forness points out, that these children by and large are not receiving services prior to outside intervention. Some are receiving special education services, however, upon their return to public schools. It is puzzling, then, why more research is not conducted on these students. The few studies conducted on depressed special education students suffer from methodological flaws and a general lack of specificity of information. Nevertheless, they do represent a hopefully growing body of research by special educators in this area.

DEPRESSION IN STUDENTS RECEIVING SPECIAL EDUCATION SERVICES

Research in the area of depression in students receiving special education services is highly inadequate. The few studies lack adequate sample size, often employ inadequate instrumentation for assessing depression, and overlook questions of severity of depression and its implication for treatment. These are important considerations which must be addressed to assure that these children and adolescents receive the comprehensive intervention that appears necessary for their progress.

An appropriate starting place for reviewing this body of literature is a study conducted by Mattison and colleagues (1986). Although not specifically addressing students currently receiving special education services, these researchers

examined the prevalence of depression in a sample of students who were referred for seriously emotionally disturbed class placement. They found that 49% of children in their sample 13 years or older met DSM-III criteria for depression. A methodological issue needs to be addressed. Sample size was fairly small. A total of 177 children aged 6 to 17 were included in the study. However, of the 177 children, only 109 were recommended for seriously emotionally disturbed class placement. Of the 109 subjects, only 11 6-12 year olds and 25 13-and-older students received a diagnosis of depression. It would seem that 36 students is a fairly small number from which to draw conclusions other than to infer that some students referred for special class placement seem to be depressed.

In an attempt to further delineate variables of depression, Cullinan, Schloss, and Epstein (1987) recently investigated educationally relevant correlates of 237 students in special education programs for the seriously emotionally disturbed and 577 nonhandicapped students. Seriously emotionally disturbed students in this study, regardless of sex, were found to be much more likely to exhibit "depressive characteristics" than the general population of students. The authors also found that depression was significantly related to lack of acceptance by peers, but not to students' hyperactivity, academic problems, intellectual ability, or educational placement. Depression appeared relatively independent of educational variables in this sample. Brumback et al. (1980) similarly found no differences between intelligence quotient of depressed children referred to an educational diagnostic center with those in the general population. However, Brumback and Weinberg (1977) and Carlson and Cantwell (1980) found depression and hyperactivity to be frequently associated in children and adolescents. More convincing is the relationship other researchers have found between academic underachievement and depression (Colbert et al., 1982; Sacco & Graves, 1984; Strauss et al., 1984; Tesiny & Lefkowitz, 1982). It is possible, however, that few academic problems were found in the Cullinan et al. (1987) study because students were currently receiving special education services.

A serious limitation of the Cullinan et al. (1987) study concerns the appropriateness of the instrument used to initially assess depression. Depression was assessed from 12 depression-related items on the Behavior Problem Checklist (BPC). Upon examination, these items appear too vague to adequately assess depression. For example, one of the questions teachers are supposed to rate is whether the child experiences depression (question 39). The tautological nature of this assessment, lack of cross validation to psychometrically established depression inventories, inability to quantify severity of depression, and questionable ability of only 12 items to adequately assess depression seriously limits the validity and generalizability of their results.

In order to investigate the prevalence of depression among 103 8- through 12-year-old students enrolled in learning disabilities classes, Stevenson and Romney (1984) had students complete the Children's Depression Inventory (CDI). Of the sample, 14% scored at or above the cutoff score of 19 suggested by Kovacs (1983). This proportion is similar to the 15% found by Winter, Cole, and Wright (1983) using clinical criteria in their survey of learning disabled children. Stevenson and Romney (1984) also found no significant differences between the most and least depressed students on age, sex, intelligence, or type of learning disability. Depressed learning disabled students were found, however, to have less self-esteem than nondepressed learning disabled students as measured by the Culture-Free Self-Esteem Inventory for Children. Although data on relationships between learning disabilities and depression is promising, more research is required before equivocal claims can be made (Livingston, 1985).

The use of a validated depression instrument (CDI) by Stevenson and Romney

(1984) is in direct contrast to the 12 items Cullinan et al. (1987) extracted from the BPC. There is, however, one advantage to the BPC items: They are filled out by significant others, in this case teachers. Most depression inventories are self-reported. A rating scale completed by others avoids the pitfalls of self-report inventories where students could either overestimate their performance in order to draw attention to their problems, or underestimate themselves to appear in a more favorable light (Maag & Rutherford, in press). However, students have generally been found to be valid reporters of their own and others' behavior (e.g., Weintraub, Prinz, & Neale, 1978).

Although self-report depression inventories have the advantage of providing the special educator with a valid means of quantifying depression, reliance solely on these inventories can provide misleading results in some instances. Maag and Rutherford (in press) have discussed this problem in depth. Briefly, depression inventories typically measure "symptoms" of depression such as sadness, sleep and appetite disturbances, and anhedonia (inability to have fun). Depression, however, is a transient and even normal condition experienced by most people to a certain extent at one time or another during their life. If a student were given a depression inventory to complete after his girlfriend broke up with him or he found out he was moving, for example, he might obtain a clinically significant score. Yet would this student be clinically depressed? That is, would his depression be of significant duration with accompanying feelings of helplessness and thoughts of worthlessness? Chances are that given no other significant emotional problems, this student could snap out of his depression. However, depression inventories are not sensitive to this transient aspect of depression. Therefore, prevalence studies of depression on any population can be misleading. In order to determine whether depression involves chronic maladaptive thinking, cognitive instruments measuring negative self-statements should be included in depression studies since maladaptive cognitions tend to be more stable and sensitive to the presence of "clinical depression" than relying solely on depression inventories.

Unfortunately, many recent studies of depression in special education populations do not use depression inventories that enable severity of depression to be quantified. Depression is not an all-or-nothing condition. There are graduations which must be identified. Treatment may vary, for example, depending on whether a student is mildly, moderately, or severely deressed. A recent preliminary study by Maag and Rutherford (1987) offers some insight into these two methodological issues.

Maag and Rutherford (1987) investigated prevalence and severity of depression in a sample of 130 students who were labeled *learning disabled* and *seriously emotionally disturbed* by their school districts and who were receiving special education services. The short form Beck Depression Inventory (BDI-S) was administered to students to determine prevalence and severity of depression. In addition, students completed the Automatic Thoughts Questionnaire (ATQ) designed to measure frequency and severity of dysfunctional self-statements which accompany depressive symptoms.

Of the 130 students, 33 (25%) obtained a BDI-S score in the severe range. This alarming figure indicates that every one out of four special education students in the study suffer from severe depression. In terms of gender, females tended to be more depressed than males, regardless of label or type of class placement (resource versus self-contained). Table 1 presents the breakdown of prevalence and severity of depression across gender, label, and class placement.

A note of caution when interpreting results presented in Table 1 is the small sample of students in both resource and self-contained seriously emotionally disturbed class placements. The large number of learning disabled students

TABLE 1

Prevalence of Depression in a Sample of 130 Adolescents Receiving Special Education Services (Preliminary Results)

Class Placement	Age		None or minimal N(%)	Mild N(%)	Moderate N(%)	Severe N(%)
Learning Disabled (resource)	male	14.9	24(33%)	18(25%)	17(24%)	13(18%)
	female	14.2	9(24%)	5(14%)	9(24%)	14(38%)
Severely Emotionally Disturbed (self-contained)	male	15.1	4(50%)	—	3(38%)	1(12%)
	female	13.9	—	—	—	1(100%)
Severely Emotionally Disturbed (resource)	male	14.1	3(38%)	1(12%)	2(25%)	2(25%)
	female	14.0	—	1(25%)	1(25%)	2(50%)

(N = 109) as compared to seriously emotionally disturbed students (N = 21) receiving special education services renders comparisons between these two groups rather speculative. There are, however, some interesting questions these preliminary data raise. Why would learning disabled students attending resource programs (3 hours or less per day) experience greater severity of depression? Would it not be expected that a greater number of seriously emotionally disturbed students would experience more depression given the nature of their behavioral and emotional problems?

In addressing these questions, several factors need to be considered. First, many learning disabled students experience a wide range of social skills deficits (Deshler & Schumaker, 1983; Pearl, Bryan, & Donahue, 1983; Sanders, 1983). Lewinsohn (1974) and Libet and Lewinsohn (1973) proposed that depression is often a result of social skills deficits. Depressed individuals are seen as not being able to obtain reinforcement from others by exhibiting appropriate interpersonal skills, nor are their behaviors reinforcing to others. This diminishes the rate of reciprocal social reinforcement. The depressed individual is negatively reinforced by further engaging in escape and avoidance behaviors from aversive situations. Schloss et al. (1984) provided support for this position by using a social skills training program to ameliorate depression in three male adolescents. In light of this relationship, it may not be as surprising that learning disabled students experience a considerable degree of depression.

Severity of depression in learning disabled students, however, is cause for alarm and suggests that this condition is going untreated by special educators. It may be possible that teachers of the learning disabled either do not have the repertoire for dealing with affective, cognitive, and/or behavioral manifestations of depression or are not aware of the cacophonous nature of this disorder. Teachers of the seriously emotionally disturbed usually receive extensive training in applied behavior analysis principles. They may be more competent in ameliorating a wide variety of behavior and emotional problems including the implementation of social skills training programs.

The role of teachers of the learning disabled is often viewed as primarily

providing academic remediation while teachers of the seriously emotionally disturbed may tend to focus more attention on social behavior. This type of role rigidity can be dangerous and is of limited benefit to students regardless of their primary label. Maag and Meinhold (1985) suggested that special education instructors often fail to incorporate cognitive strategies in the remediation of behavior problems. Failure to use cognitive strategies is generally not evident when teaching academics which are seen as resulting from cognitive interaction. Ironically, cognitive methods for remediating academic deficits can similarly be used by teachers in the treatment of affective and behavioral disorders.

It is also possible that resource students who are depressed are exposed to greater stressors in their environment which can potentiate depression. Self-contained students may be relatively sheltered from such external demands and pressures such as teasing peers, social rejection, and so forth. These speculations may be partially responsible for the paradoxical nature of these and other findings: Depression appears to occur more frequently and severely in learning disabled students, although depression is considered a defining criteria of the seriously emotionally disturbed.

IMPLICATIONS FOR SPECIAL EDUCATORS AND DIRECTIONS FOR FUTURE RESEARCH

Although a paucity of research exists on depression in special education populations, interest in this area has recently burgeoned. Presently, there are more questions than answers concerning prevalence, severity, behavioral manifestations, and treatment implications for depressed special education students. Although findings of Maag and Rutherford (1987) and Forness (in press) may support contentions that seriously emotionally disturbed and learning disabled students are more similar than different (e.g., Hallahan & Kauffman, 1976), considerably more research is required. The plethora of research on depression in psychiatric and clinical populations provides a starting point for special educators to investigate various correlates, causes, behavioral manifestations, and treatment implications of depression in special education populations.

Clearly, more attention is required for depressed special education students and the learning disabled in particular. This represents a growing concern to special educators. There is a clear trend towards "dehospitalizing" adolescents who exhibit behavioral and affective disorders for a variety of reasons. This would suggest that schools will share even a greater burden for identifying and treating a wide variety of behavioral and affective disorders. Special educators occupy a particular pivotal position for being the first line of professionals to notice depression developing in students. Schools represent an ideal milieu for assessing depression since students' behaviors, interpersonal relationships, and academic performance — all important indicators of mood and ability to cope — are subject to ongoing scrutiny in this setting (Maag & Rutherford, in press). Unfortunately, although special educators possess some general knowledge for identifying depressed students, they lack specific skills for coordinating various aspects of information into a comprehensive evaluation plan (Maag, Rutherford, & Parks, in press). These are skills which can readily be acquired. Maag et al. (in press) speculate that a general lack of awareness of depression as a problem in special education students contributes to this problem. It is unsettling that so many depressed students with learning and behavior problems are not identified by their schools as in need of treatment until these problems are brought to the schools' attention by outside agencies such as psychiatric and outpatient clinical facilities.

It is clear from the data that depression represents a major mental health risk to a variety of special education students. Forness (in press) noted that what is not

clear is that childhood and adolescent depression requires differential consideration by special educators once the student is identified and receiving special education services. Specific aptitude-by-treatment interactions in special education have remained elusive (Kavale & Forness, 1986). This logic, however, may prove to be premature in the case of depression. For example, Beck and colleagues have long stressed the role that negative cognitive self-statements play in persons developing and maintaining depression (Beck, 1976; Beck, Rush, Shaw, & Emery, 1979). This observation has direct treatment implications. Special educators need to assess students' maladaptive cognitions. Maag and Rutherford (1987) found that depressed special education students' maladaptive cognitions become worse with severity of depression. Cognitive factors, therefore, need to be addressed. Cognitive-behavioral interventions have successfully been used for treating childhood and adolescent depression (Emery, Bedrosian, & Garber, 1983). However, it is likely that cognitive factors may be overlooked in a depressed student engaging in disruptive and oppositional behaviors. Although behavioral interventions may successfully reduce problematic behaviors, maladaptive cognitions accompanying depression may go unaddressed, thus exacerbating depression (Maag & Meinhold, 1985). Special educators should be sensitive to the coexistence of a variety of problematic behaviors with depression since differential treatments are often necessary, and in some cases treatment for one disorder may be contrary or even exacerbate the other problem (Puig-Antich, 1982).

There are a variety of intervention strategies for ameliorating depression such as social skills training, cognitive therapy, and self-control training, to name but a few. Each strategy postulates a slightly different core of symptoms and etiology. In dealing with depressed special education students, it would be desirable to identify which deficits (e.g., behavioral, cognitive, social skills, self-control) seem most predominant when developing intervention strategies. This problem could be approached by attempting to assess all potential behavioral and cognitive deficits associated with depression. An intervention program could then be developed that would attempt to cover all potential target areas systematically. This approach, however, would most likely be cumbersome and time consuming. Kaslow and Rehm (1983) suggested a strategy that would be particularly applicable to special education settings. Potential treatments could be ordered in a logical sequence and decisions made as to which treatment to employ in which order. For example, if depression is identified as a by-product of social skills deficits, then it would be logical to treat this problem first. Basic interpersonal social skills training would be indicated. If depressed students are engaging in a variety of problematic behaviors that prohibit accuracy of self-monitoring or attending to the group, for example, targeting overt behaviors and implementing applied behavior analysis procedures may be the first step indicated for these particular students.

It becomes evident that there are a variety of considerations required to identify and treat depression in school settings. This is not, however, beyond the scope of special educators' roles and responsibilities. School-based cognitive and social skills interventions for depressed students have already been successfully employed (e.g., Butler et al., 1980). This does, however, require additional attention being given to etiological bases, characteristics, and behavioral manifestations of depression in special education students. Certain interventions do seem to work better than others depending upon whether or not students are depressed and what manifestation their depression takes.

Because of the chronic nature of depression, an increase in earlier special education intervention may help reduce both chronicity and progression of other concomitant behavioral dysfunctions (Mattison et al., 1986). This is not to suggest, however, that every severely depressed adolescent be placed in special education

programs. For some depressed adolescents who are returning to school after a period of hospitalization, placement in special classes could potentiate otherwise remitting depression (Guetzloe, 1986). These students could view special education placement as another failure in their life at a time when they need to experience many positive and satisfying relationships with a wide variety of students. There are, however, a number of students in need of and currently receiving special education services who are severely depressed. For those students, the role of special educators in identifying and providing treatment cannot be understated.

CONCLUSION

Depressed children and adolescents are at risk for developing a variety of learning and behavioral problems. Although most research in this area has been conducted with psychiatric populations, recent evidence suggests similar indications of depression in students receiving special education services. Efforts by Cullinan and colleagues (1987), Forness (in press), and Maag and Rutherford (1987, in press) at delineating variables associated with depression in special education students point to areas which need to be addressed regarding assessment and treatment. Special educators need to be familiar with behavioral and learning characteristics of depressed children and adolescents, recognize depression as a disorder occurring in both severely emotionally disturbed and learning disabled students, and stess schools' role in providing services for depressed students.

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Dealing with Adolescent Depression and Suicide: The Comprehensive Approach

Charles D. Laufer and Cornelia Green

ABSTRACT

This article is a description of a literature and experienced based program for understanding and intervening with teenage depression and suicide — the Comprehensive Approach. The program was developed from comprehensive analysis of applicable literature and the authors' field research and extensive clinical experience. The program stresses originality, accountability, and state-of-the-art components. These are found in three key program features: The multidimensional approach to assessment presented in the form of models; the multimodal, individualized approach to intervention and treatment presented in three models — cognitive, affective, and behavioral; and the multidisciplinary team approach to implementation of intervention programs, presented in a working model, the Behavioral Intervention Plan. This intervention plan has been developed for all concerned practitioners to utilize in developing their own intervention systems, adaptable to local communities, schools, agencies, and professional office practice.

The Comprehensive Approach is an intervention program developed from an extensive current literature search and analysis (Appendix 4), and the authors' own field research and extensive clinical and special education experience with depression and suicide in youth. In the intervention program the authors have developed an approach to these issues that is both comprehensive and unique (Laufer, Green, & Anderson, 1986). The program is comprehensive in that it addresses a full range of components in understanding and coping with depression and suicide with today's youth. The range includes understanding causes, recognizing signals and symptoms, using diagnostic instruments, identifying treatment targets, implementing intervention plans, maintaining these, and addressing "after the fact" issues. The uniqueness of the approach derives from its combined comprehensiveness and coverage and its multidisciplinary treatment application to the phenomena of depression and suicide in adolescents. The program mandates that effective treatment entails two critical aspects, one or both of which are often missing from existing programs: (a) an individualized prevention and/or assessment plan integrated into both the cognitive/behavioral model and the practical needs of at-risk youth; and (b) a multiple component intervention plan implemented by a coordinated team of professionals and lay persons.

The broad knowledge base for the Comprehensive Approach draws from a literature review of significant scientific inquiry which originates in the early 20th century with Sigmund Freud (1910). At that time, the accepted view was that youth could not truly experience depression because of their developmental capacities. Later inquiries by Anna Freud and others (Freud & Burlingham, 1944), and results from pediatric research in Europe (Cytryn, McKnew, & Bunney, 1980), reflect an era of disagreement and confusion regarding the existence and definition of

depression and/or suicide in children (as opposed to adults). Still later, a period of synthesis gradually emerged in two landmark scientific convocations (Annell, 1972) with partial agreement reached in DSM III (APA, 1980) and more recent research (Cantwell, 1983; Carlson & Cantwell, 1980; Lefkowitz & Tesiny, 1980). Specific knowledge base for the Comprehensive Approach integrates relevant data from the literature into practical operational definitions, models, and techniques for assessment/diagnosis and treatment as described below.

Assessment — Diagnosis

The assessment component encompasses three types of process, of which one or a combination can be selected to meet the special needs of given situations. One type utilizes models, checklists, and observational outlines for concerned others to utilize informally in identifying depressed and/or suicidal adolescents (Achenbach, 1978; Beck, 1972; Cytryn, McKnew, & Logue, 1974; Kovacs, 1980; Lewisohn, 1974; Pfeffer, 1986; Quay & Peterson, 1979). These are applicable to a broad range of professionals (e.g., teachers, counselors, social workers, psychologists) as well as to parents. The checklists and observational outlines encompass existing published techniques (Achenbach, 1978; Beck, 1972; Callahan, 1980; Edelbrock & Achenbach, 1984). The models encompass diagnostic processes, causal process, and ingredients of depression and suicide. In these, signs and symptoms at different levels of risk are identified. For example, the Descriptive Model (Appendix 1) illustrates a multitude of negative forces such as prolonged stress, hurt, anxiety, self-anger, helplessness, and profound loss, working in combined force to create depression (Bibring, 1953; Klerman, 1975). The Descriptive Model further illustrates how unrelieved depression creates anxiety and emotional hurt which, unless healed, will lead one of two ways — either toward specific defenses of psychosis (when defenses break down), or toward various symptoms (the extreme being attempts at or accomplished suicide).

The Ingredient Model — Suicide (Appendix 2) describes precipitating types of trauma history (Beck, Rush, Shaw, & Emory, 1979; Freud & Burlingham, 1944; Pfeffer, 1986; Schneidman, 1980) leading to hopelessness (Beck, 1974), helplessness (Abramson, Seligman, & Teasdale, 1978; Seligman, 1975), despair (Weinberg, Rutman, & Sullivan, 1973), and isolation (Cytryn et al, 1974), resulting in intensifying processes of coping systems, defense mechanisms, and support systems which eventually break down (Oppenheim, 1967; Renshaw, 1974; Toolan, 1975). In this model, the point is illustrated that although level of suicide risk can now be determined with some accuracy, predictability of the act is still far from possible. The unknown "final-straw" factor is not predictable (Pattifor, Perry, Plowman, & Pitcher, 1983; Peck, 1968).

A second type of assessment process involves the use of developed group screening tests (Chambers, Puig-Antich, & Tabrizi, 1978; Kovacs, 1980; Lefkkowitz & Tesiny, 1980; Quay & Peterson, 1979; Reynolds, 1984). These techniques are applicable in schools, clinics, or even individually.

The third assessment process involves use of interpretive score patterns on several existing individual clinical tests (e.g., MMPI, Rorschach, Millon, Zung). These are targeted particularly to identifying (and not missing) masked depression/suicide conditions (Glaser, 1968; Neuringer, 1975).

Intervention — Treatment

Deriving further from specific knowledge base and moving a step closer to the issue of describing the dynamics of at-risk youth, the authors have developed a three-component intervention program including behavior, feeling, and cognition

(Beck et al., 1979; Hawton & Catalon, 1982; Kendall, 1986). The three components are contained in an intervention approach that utilizes three irritational belief clusters, each of which includes an identifiable core feeling that a depressed or suicidal teenager may experience in regard to the basic question, "Who am I?" (Laufer et al., 1986).

These clusters were developed from the R.E.T. approach (Bernard & Joyce, 1984; Hauck, 1967). Inherent in these belief clusters is the fact that young people, just as adults, are constant processors of experience, and they attempt to make sense out of the chaos of experience in terms of a fairly constant, distorted core feeling about the self and the self-world relationship. Since core identity is still forming in the teenager, it is much less stable than it is for most adults. As a result, any distortions of self and world are likely to have a more powerful impact on a youngster than an adult (Bernard & Joyce, 1984). These distortions include: all or nothing thinking, overgeneralization, minimizing positive and maximizing negative values of experience, perfectionistic standards, the attribution of "good" to external causes and "bad" to internal causes, and many more (Ellis & Harper, 1975; Hauck, 1967). While teenagers are far from unique in falling into these traps, their vulnerability to their pernicious effects is greater than for most adults.

The authors have found that the three typical irrational clusters which are related to teenage depression and suicide can be expressed in three distinct "I statements" that typify the individual's core feelings as s/he processes and makes meaning out of the experience from moment to moment. The three statements are: *I must do well and be approved; I must get what I want;* and *I must be comfortable and life should be fun* (Laufer et al., 1986). From a rational point of view, all of these statements can be demonstrated to be unrealistic to say the least. In addition, they possess the common characteristic of being absolutistic. Thus a person, whose fundamental core of self is both unrealistic and absolutistic when interacting with her/his environment, will experience continual disappointment and frustration along with a growing sense of despair about life, eventually leading to a state of hopelessness and depression (Ellis & Harper, 1975; Hauck, 1967).

These belief clusters, as they are demonstrated in daily behavior of teenagers, are critical to both identification of an intervention with the at-risk youth by a parent, teacher, or other professional. They are constructed of their identifying *belief*, and accompanying *scripts, behaviors,* and *feelings.* The following are brief descriptions of the three types in action.

The first cluster centers around the *I must do well and be approved* belief and is usually expressed in a "good boy/good girl" facade of core behavior. It is based on a life script derived from the following unexamined logic: I am worthless unless I am approved; to be approved I must always be outstandingly competent; therefore, unless I am always competent and do well, I am worthless. The behavior of this "always striving but never arriving" individual is characterized by ingratiating approval seeking, perfectionistic work, attention seeking (class clown, charming model child, or shy and helpless type), or by the more negative counterparts such as blow-ups after failure, task avoidance (fear of failure), and withdrawal.

Feelings associated with this cluster are inferiority, guilt, anxiety, sadness, and depression. In general, this person has internalized most conflict in her/his life. There is an underlying sense of profound dependence (common to all three types, but different in its dynamics and required treatment) that compels the person to distort all incoming experience, making it consistent with this self-blaming format. Survival depends on pleasing others. Treatment must address this particular information distortion as well as the underlying sense of dependence on which it rests. The goal is to build a self-core in which the positive elements are not entirely dependent on others.

Cluster II, with the *I must get what I want* belief, produces aggression as a core behavior style and is based on its own unexamined logic: I must always get what I want (my needs should always be met); when my needs are unmet, it is caused by the fault and unfairness of others; therefore, I must fight with others to get what I want and punish them when I do not. The script for this fight-to-survive style produces behaviors that are often antisocial in nature — demanding, hitting, stealing, and throwing temper tantrums. The more general behaviors are characterized by impulsivity which contributes to ineffective performance (in tasks as well as personal relationships) and often results in underachievement. The underachievement can set the context for refueling the cycle.

The feelings associated with this cluster are anger, hostility, jealousy, and discomfort anxiety. In direct contrast to the first cluster, this person has externalized all conflict, projecting all causation (and therefore all power) onto others. The underlying dynamics of dependence here is a frightening sense of being at the mercy of others who are not particularly fair or benevolent. As in type one, the resulting distortion of incoming information perpetuates the unhealthy self-other relationship, so the treatment must address that particular type of distortion. The goal in this case is to build the internal capacity to contribute more to meeting one's own needs.

Cluster III individuals act on the core belief that *I must be comfortable and life should be fun*. Their core behaviors are characterized by flight. The logic of their life script, if articulated, would be something like this: Life should always bring me pleasure and comfort, never pain; commitment and hard work to achieve goals or overcome difficulties are painful; therefore, easy pleasure and the avoidance of pain are the criteria for behavior. These individuals, scripted to a course of least resistance, produce behaviors that bring immediate and easy pleasure. They may tend toward such things as sensation seeking and substance abuse. Their response to basic activities such as school or homework, domestic relationships, or responsibilities will be avoidant behavior. They are easily bored, cannot tolerate initial feelings of discomfort, and will avoid dealing with an issue by feigning ignorance, dawdling, and fantasizing.

The feelings associated with this cluster are emptiness, disappointment, diffuse anxiety, secondary anger, guilt over procrastination, unpleasantness, and tiredness. In general, this person has chosen to avoid or deny all conflict. Her/his distortion of incoming information is primarily a screening out of much of it. The underlying sense of dependence derives from a sense of passivity in relation to the environment and produces a diffuse sense of identity and deficit in inner goal-directedness. The treatment would need to address an acceptance of a mixture of pleasure and pain in life, and the goals would be to build inner direction and motivation.

Although not all depressed and potentially suicidal teenagers will demonstrate these role types in an obvious way, in most cases they will be evident in some manner if masked by other superficial behavior (Garfinkel & Golombek, 1974; Glaser, 1968). It should be noted also that given individuals will not always fit just one category, but may demonstrate a mixture of attitudes. Furthermore, there may be a great variation, ups and downs, and inconsistencies in the behaviors of an individual who basically does operate out of one of these roles.

Additional to the framework of these clusters, studies have demonstrated that sudden and dramatic change in a teenager's behavior may constitute a warning flag to the alert adult (Garfinkel & Golombek, 1974; Konopka, 1983). The cause and construction of this behavioral change must be integrated into the cluster phenomena.

Intervention - Cautions

The careful development and delineation of these three clusters in the program of Comprehensive Approach underscore its commitment to the importance of individualizing diagnosis and intervention plans to meet the individual needs. By way of contrast, caution is offered regarding three types of generic intervention that have proven to be ineffective (Beutler, 1983; Lewis, 1985). The first is an individual intervention (even if it utilizes a team approach) that is rigidly constructed and applies in the same way to all individuals. The second type of generic intervention is a broad-based community intervention plan often not derived from the unique needs of that community. Even if the mass prevention program is designed from within the community, there is a real question whether the heightened attention and awareness do more harm than good.

The third generic appproach, mass media specials, is perhaps fraught with the most danger. As recent research has demonstrated, teenage suicide has been found to increase immediately following television specials dealing with suicide (Garfinkel & Golombek, 1974; Motto, 1967; Tishler, McKenry, & Morgan, 1981). The authors offer a possible explanation for this increase based on the common core of unrealistic and immature thinking that underlies the at-risk teenager (Laufer et al., 1986). The vulnerable teenager is truly needy and suffering, and may fantasize all the concern and attention that follows a suicide as somehow meeting those needs. That is to say, the unrealistic thinking can lead to romanticizing the results of suicide. Perhaps even more damaging is the unrealistic blocking out of the graphic reality of suicide — the ugliness and stench; blood, guts, and feces; ugly, torn, and distorted limbs and bodies. Although realistic and hardly the etherealized beauty which the fantasizing adolescent feels is supposed to replace current unhappiness, the television specials shy away from these aspects and images of suicide. Such exclusions remove the deterrent effects of such media productions and group attention may be lost, if not reversed. This has come to be know as "epidemia" (Garfinkel & Golombek, 1974; Holinger, 1978; Robbins & Conroy, 1983; Tishler et al, 1981).

Another possible danger of television specials is their understandable focus on their search for causes, and thus their emphasis on the possible contributory elements in modern life — stress, injustice, child abuse, poverty, and a host of other evils (Motto, 1967). All of these are valid issues and deserve attention, but the solution to these problems that is being examined — death — is not given an equally negative, accurate examination. The concept of death — permanently dead, no second chance forever — is only vaguely grasped by adults, much less by teenagers. Most specials, understandably sympathetic to teenagers in distress, do not help to bring home this message and thus to underscore the undesirability of the suicide alternative.

The authors suggest that overall sociological issues are contributing factors to suicide and may need profound examination and change; however, the most effective approach to prevention and treatment lies in identifying the individual at risk and rebuilding the mini-world of that individual in both its internal and external components.

Application

Implementation of the program of the Comprehensive Approach revolves around understanding the Behavioral Intervention Plan (BIP) developed by the authors (Appendix 3). This comprises the application of both assessment and intervention data with depressed/suicidal youth. Much of the rationale for the individualized approach has already been stated. For instance, the rationale for a team approach

to treatment is derived from the literature which repeatedly indicates the inadequacy of traditional, once-a-week (or more) individual therapy (Beutler, 1983; Lewis, 1985; Schloss, 1983; Schuyler, 1973, Stone, 1973). While individual therapy may be a necessary component in many cases and helpful to nearly all, it does not constitute sufficient treatment for the majority of cases.

At issue here is the fact that the truly at-risk teenager is vulnerable 24 hours a day, 7 days a week. In most cases 1 hour per week with the best of therapists will not sufficiently alter the inner dynamics and their relation to the external forces that are creating the risk level. The literature is consistent in indicating the importance of impacting multiple elements of the youth's environment in order to reduce effectively the risk and create the support system to maintain the reduced risk level (Brown & Lewinsohn, 1986; Butler & Miezitis, 1980; Lewinsohn, 1974; McCoy, 1982; Ross, 1980; Schloss, 1983; Stone, 1973).

Consistent with the authors' clinical experience and field research findings and the literature revelations, the most appropriate, accountable, and effective environment for intervention with depressed and/or suicidal youth has been found to be the school setting (Garfinkel, 1986; Lucas, 1986). This setting has been found to impact the life experiences and behaviors of youth with greatest extent (multiplicity) and intensity (time involved). For these reasons the BIP is presented as school based.

Review of a volume of educational and special educational screening and programming plans and processes (such as Wisconsin's Multidisciplinary Team-Individualized Educational Program and Michigan's Individualized Educational Planning Committee) reveals that none have been identified which attend to the elements and components found in the depressed and/or suicidal student. Most deal with generic school problems; some deal with specialized problems other than depression/suicide (i.e., L.D., E.D., E.M.I., etc.), but commonly lack the specific, unique, and critical elements of the depressed/suicidal student. For these reasons the BIP was developed, unique to these students, although not without some components of older, more traditional plans.

The BIP has three sequential and integrated components (stages). The first of these deals with the precise diagnosis of the problem of any student referred for possible concern regarding depression and/or suicide. It includes input from multiple sources including teachers, counselors, parents, and psychologists or psychiatrists (Kendall, 1986). It is constructed from five evaluated areas of depression/suicide: The identified behaviors observed; associated cluster beliefs and behaviors; scripts being enacted; dominant feelings; and targets, initial identification of the most dangerous feelings and behaviors (Beck et al, 1979; Bernard & Joyce, 1984; Hauck, 1967; Hawton & Catatan, 1982). At this point a decision is made regarding the level of intervention needed — Level I, Prevention; Level II, Intervention; Level III, Referral; and Level IV, Crisis. Finally, if an intervention is indicated, a team is created based on the student's needs and the available professional and lay people in her/his life.

A few words need to be said about the team. In general, its composition is guided by the principle that treatment must impact the internal world and the external interpersonal world of the depressed/suicidal youth (Tesiny, Lefkowitz, & Gordon, 1980). Change and support must come from both areas. The youth must be helped to develop skills to create internal support and to make choices in relationships and behavior that will contribute to ongoing external support systems for her/himself. The team may include family members, friends, and professionals. The degree of contact and monitoring must be decided. The extreme variability of individual needs can be demonstrated by the possibility that a given case might require the student to build support outside her/his family if it appears that this

usually desirable source of support is detrimental. In any case, the team's unique goals in each case must be coordinated by an appointed case manager. It is this person's responsibility to integrate the efforts of the team and to maintain a constant evaluative awareness of the state of a given case (Barrett, 1985; Hawton & Catatan, 1982).

The second stage of the BIP is the brainstorming effort of the team and the depressed/suicidal youth to come up with coping strategies effective for that individual. Its basic thrust is to develop strategies that move the student through three pahses of growth — acceptance and awarenesss of self; expanded acceptance and awareness of self/other interactions; and the interalization of the new self/other experience (Beck et al., 1979; Butler & Miezitis, 1980; Baufer et al., 1986; Lewisohn, 1974).

The next portion of this stage of intervention is that of creating and teaching problem-solving techniques that coordinate and apply specific coping mechanisms (from a generic "menu") to particular problem situations that the individual encounters (Hawton & Catatan, 1982; Lewisohn, Biglan, & Zeiss, 1976). Finally, this entire stage of intervention has been embodied in reality by assignment of ongoing, coordinated tasks to each team member. There is a who, what, when, where, and why designation for each group, individual, and outside agency that the team has chosen to involve. The case manager, in conjunction with the team, makes assessments at various stages in case adjustments which need to be made. Likewise, evaluation of the progress or lack of it is used to determine whether the maintenance efforts designed into the treatment are producing a stabilizing effect.

The third stage of the BIP consists of maintenance techniques. As the rest of the program, these are multidisciplinary and community based.

SUMMARY AND DISCUSSION

The Comprehensive Approach is a literature and experience based approach to identify, assess, and intervene with depressed/suicidal youth. The program is multidisciplinary and utilizes both multiprofessional and lay persons in its implementation. It is school based and total-community involved. It utilizes existing agency personnel in a specially structured and targeted flow process. Its purpose is to use state-of-the-art techniques to help the depressed/suicidal youth and significantly reduce the incidence of this phenomenon.

The Comprehensive Approach is encompassing and demanding. The issues are complex and grave. The intervention plan proposed seems complicated in that it often requires the mobilization and coordination of elements from several sources in the community. But the staggering shock delivered to a family and community when a young person chooses to end her/his life before it really begins calls for societal and individual examination.

If youthful depression and suicide are increasing, a society is behooved to respond with its best understanding of the need of response, regardless of what that response may require. Paradoxically, the response that the authors purport is necessary — the integration of various elements to form a supportive community — may be a response that families and communities have less and less capacity to provide in our fast changing society in which so many forms of supportive bonding are apparently disintegrating. If increasing teenage suicide is a desperate and unconscious effort to evoke the necessary familial and societal support bonds that create healthy context for new young life to flourish, our survival as a society may depend on hearing and responding to such a message.

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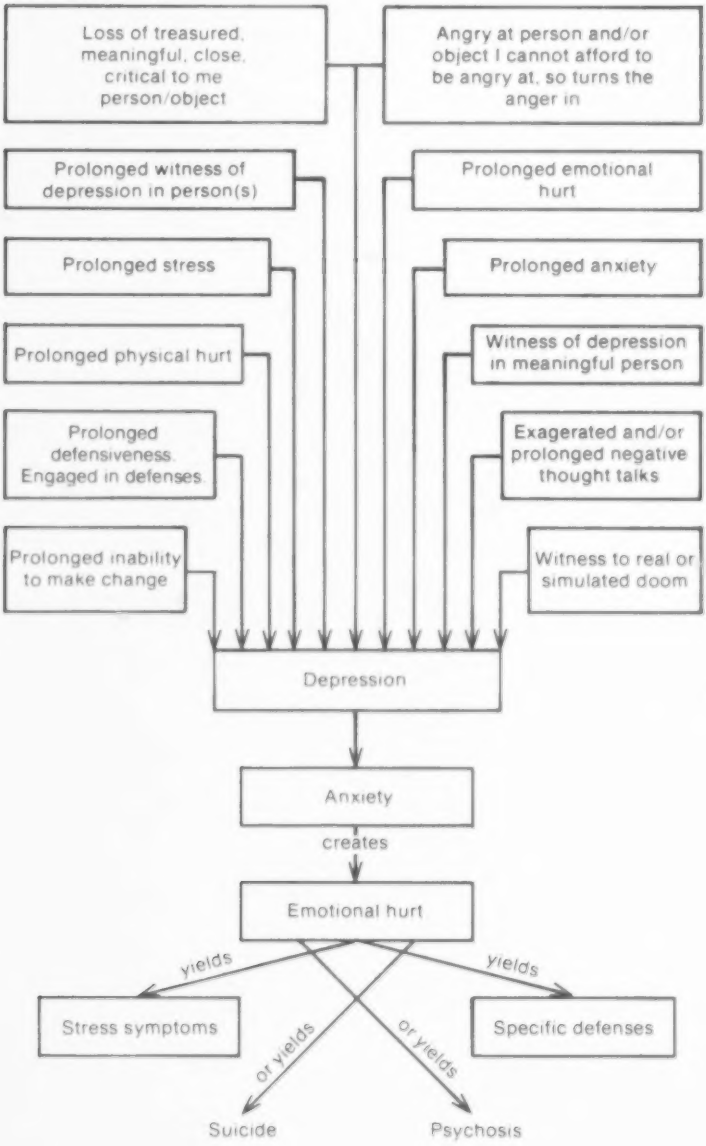
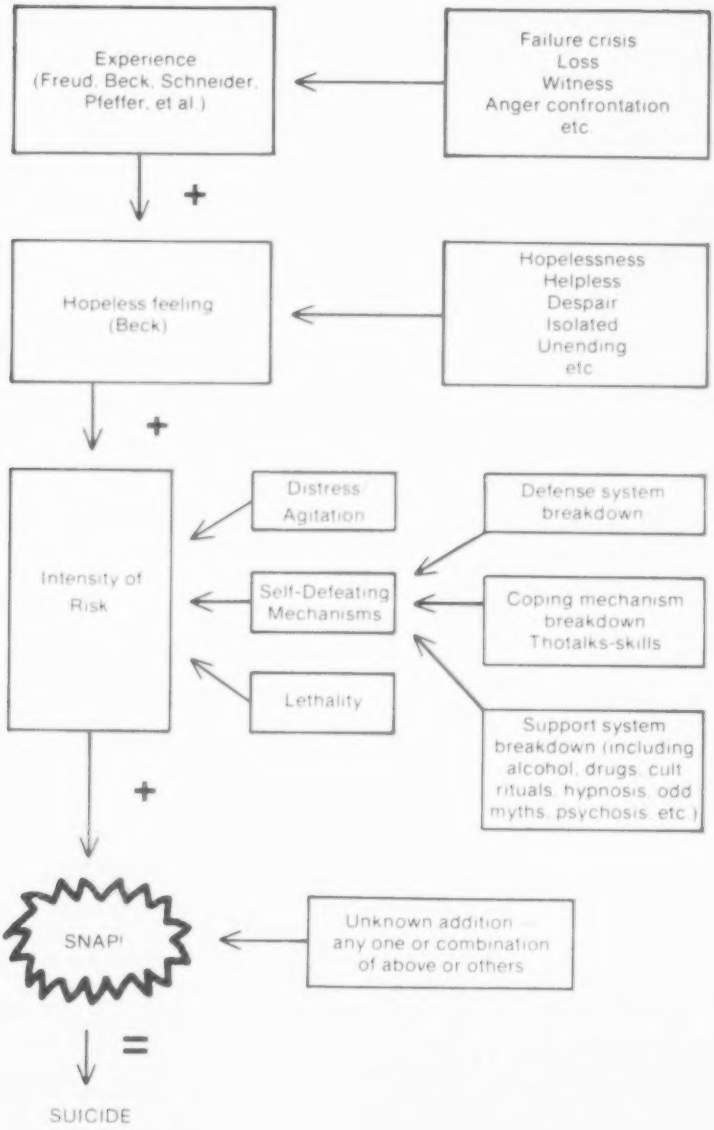
APPENDIX 1

DESCRIPTIVE MODEL — DEPRESSION



APPENDIX 2

INGREDIENT MODEL — SUICIDE



APPENDIX 3

STAGES II-C AND II-D OF THE
BEHAVIORAL INTERVENTION PLAN (BIP)

Step C. Take Action: Strategies — How You Will Take Action (In the School)

	Active Group	Milieu Group	Individual (1-to-1)	Outside Agency
Who				
What				
Where				
When				
Why (goal)				

Step D. Review Time Interval for this Plan
Signatures of Team Members

_____ _____

_____ _____

_____ _____

APPENDIX 4

CHILDHOOD AND ADOLESCENT DEPRESSION/SUICIDE ANNOTATED SELECTED READINGS

Identifier Code:

General	1
Treatment	2
Assessment	3
Prevention, Community	4
Hyperactivity	5
Enuresis	6
Anger	7
Adolescence	8
Suicide	9
Depression	10
Research	11

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Responding to the Threat of Adolescent Suicide

Odette J. Bruneau

ABSTRACT

Adolescent suicides have increased at phenomenal rates within the past 20 years and the methods which adolescents employ are potentially more lethal. Multiple or "cluster" suicides are also rising and present challenges to individual teachers as well as school districts. Teachers need to be made aware of risk indicators and action to be taken when they feel a student has increased risk for suicide. Program models which have been successful in schools are also cited.

Youth suicide may be the real number one cause of death in the 15- to 24-year-old category. There is evidence that auto accidents may often be suicides, but medical experts attribute the cause of death to the accident to prevent burdening parents with the label of suicide (Colt, 1985). Other sources have placed suicide as the second (Jackler, 1984) or third (Mercy, Tolsma, Smith, & Conn, 1984) cause of death among this age group.

"Cluster" suicides, a phenomenon where one suicide sets off a series of suicides or suicide attempts, are increasing and have been reported in Seattle, Washington; Houston, Clear Lake, and Plano, Texas; Milwaukee, Wisconsin; and counties just outside of New York City (Colt, 1985).

Suicide and suicide attempts have increased 135% during the past 20 years ("Classes for", 1985). In 1960 the suicide rate for 15- to 20-year-olds was 5.2 per 100,000 but in 1980 the rate was 12.3 per 100,000 (Bosak, 1985). Males — who more frequently complete suicides than do females — have shown a 50% increase compared to a 2% increase for females (Mercy et al., 1984). Suicide is not just a phenomenon among adolescents and young adults; suicidal behaviors, such as repeated aspirin overdosing or hurling the body from high places, have been reported in children as young as 2½ years old (Rosenthal & Rosenthal, 1983). Suicide methods have also changed, with a 10 to 20% increase in the use of firearms and explosives and a decrease in the use of poisons (Mercy et al., 1984). The lethality of firearms and explosives suggests that these youths were serious in their intent. The seriousness of the suicide act and rapid increase in incidence make suicide an issue that schools must face.

Responding to the Suicide Threat

Teachers interact with the same students on a daily basis. They know students well enough to note changes in mood or behavior. Students will often share thoughts with a trusted teacher that they would not share wiith a parent. Renfro (1984) stated that suicide and suicide attempts may be a way the student chooses to communicate. Therefore, teachers should learn to recognize the symptoms of a student who presents an increased risk for suicide. A teacher who cares enough to talk to a troubled student might prevent a suicide. There are a number of behavior indicators, developed from interviews with suicide attempters, which may help to identify

a student whose risk is increased. The following behaviors represent a higher suicide risk when their onset is sudden, the behaviors represent a marked change for the individual, a number of these behaviors are present, or one of the last four behaviors is present.

- Marked deterioration in academics;
- Lack of interest in peers;
- Inattentiveness;
- Increased use of alcohol and/or drugs;
- Sexual promiscuity;
- Running away;
- Pervasive mood of unhappiness;
- Atypical eating or sleeping patterns;
- Collecting pills, razors, and firearms;
- Talking or writing about suicide or death;
- Giving away prized possessions; and
- Previous attempts (Deykin, 1984; Wellman, 1984).

Other factors which contribute to the degree of risk include a feeling of anomie or isolation, the age of the student, and recent stress-producing events such as a move, break-up with a boyfriend or girlfriend, divorce or death of a family member (McHenry, Tishler, & Christman, 1980).

When the student exhibits marked behavior changes and the teacher believes the student to have increased risk for suicide, s/he should refer the student to the school counselor (Wellman, 1984). A trained counselor will conduct an evaluative interview during which questions similar to the following may be asked (Deykin, 1984).

> Have you ever felt so low that you thought you would be better off dead?
> Have you felt that way in the past few days?
> Do you feel so badly now that you have thought of actively harming yourself?
> Have you ever attempted suicide?

The counselor may also choose to employ a supplementary evaluation scale such as the *Beck's Suicidal Intent Scale* (Hawton & Catalan, 1982). The counselor should inform the student that in the case of a potential suicide, parents, the school principal, and the school psychologist are to be informed (Martin & Dixon, 1986). It may also be necessary for the school counselor to refer the parents and the student to local mental health professionals for further service (Wellman, 1984). Teachers should be alert to marked behavior changes, attempt to talk to the student, and not be lured into a pact of confidentiality. Because suicide is a serious threat to the society of young adults, the topic of suicide has been suggested for inclusion as a part of the regular mental health studies for students and training for school staff (McHenry et al., 1980).

The Cluster Suicide Phenomenon

While individuals with increased risk for suicide can be identified by marked behavior changes, it is much more difficult to evaluate the potential of a school population for multiple suicides. The phenomenon of cluster suicide is on the rise. Sometimes the deaths and suicide attempts seem to be related to each other, such as members of the same social clique, and at other times appear totally unrelated. In Plano and Clear Lake City, Texas, there were 14 deaths by suicide and an equal number of suicide attempts in less than a year's time (Bosak, 1985). There seem to be some common threads among schools that have been involved in multiple suicides. The schools tend to be in suburban, higher socioeconomic neighborhoods (mean family income over $30,000) which are also highly mobile and

competitive. The isolation which some students feel, coupled with the pressure to succeed and a lack of life experiences, seems to lead already suicide-prone students to model the behavior of a peer who commits suicide (Gelman & Gangelhoff, 1983; Pfeifer, 1986).

Program Models in Suicide Education

Too often a suicide education program is effected because of a student death. The American Association of Suicidology has stated their intent to push legislation which would require school children to attend mental health classes as a part of the regular curriculum ("Classes for", 1985). The programs which have been the most successful in reducing the number of suicides have involved staff, students, parents, and the community.

Plano, a school district near Dallas, hit with 8 suicides and 16 attempts within a year, has set up a number of programs. Plano Senior High School has adopted a holistic approach where the whole topic of stress is a focus. A checklist of behaviors of concern was developed to help identify and refer students who may have increased risk for suicide. There are also evening programs for parents which cover topics such as adolescent depression, communication, stress management, and suicide symptoms. Another feature critical to the program has been the establishment of several peer groups which function to teach students decision-making skills, establish positive peer pressure, talk one-to-one, connect with new students, and reach the isolated students (Bosak, 1985; Gelman & Gangelhoff, 1983).

Clear Lake City, another Texas district affected by a cluster of suicides, uses a trained peer counseling group to deal with teen problems such as coping with parents and stress. There are also plans to increase psychological services, train counselors and school nurses, and select curriculum materials (Bosak, 1985).

In Fairfax County, Virginia, where there were 11 suicides within a year, they have instituted a program, "The Adolescent Suicide Prevention Program," which is presented separately to parents, students, and staff. The program has resulted in a greatly reduced suicide rate ("Preventing", 1985).

There seems to be an increasing awareness that schools should take a preventative role in youth suicide, fostering an atmosphere of supportive interaction. Staffs need training in the signals, myths, realities, and intervention strategies of suicide. While trained counselors will generally act as interveners, teachers will most often be the ones to recognize symptoms (Appel & Others, 1984). Concerned and involved students, parents, and school staffs may be able to help curtail the rise in adolescent suicide.

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Transdisciplinary Perspectives: A New Look at Educating Emotionally Disturbed Children

Robert P. King

ABSTRACT

A transdisciplinary model is described as an alternative to multidisciplinary and interdisciplinary models that guide assessment and intervention practices of programs for emotionally disturbed children. The transdisciplinary model offers potential solutions to issues of definitions, classifications, and ethics that currently plague the field of emotional disturbance.

The field of emotional disturbance is lacking a clear consensus regarding its philosophical foundation (Paul, 1985). Yet our educational system has "moved to a more developmmental/ecological perspective in much of our practice" (Paul, 1985, p. 146). In keeping with this perspective and transcending the various conceptual models that are currently determining educational practices, a transdisciplinary model is herein presented. This heuristic and pragmatic model provides new directions to the field of special education, specifically in the area of emotional disturbance. "Heuristic theory is especially important in areas where we are still looking for new paths to new kinds of knowledge" (Rhodes & Paul, 1978, p. 145). A transdisciplinary model of service is a process wherein team members function in such a way that they transfer their unique skills, information, knowledge, and problem-solving methodologies across discipline boundaries in an attempt to provide optimal treatment for students with exceptional needs (Hart, 1977; Sirvis, 1978).

The purpose of this article is to provide the theoretical and applied rationale for the use of a transdisciplinary model in the education of emotionally disturbed students. First, the evolution of the transdisciplinary model and its relationship to multidisciplinary and interdisciplinary models is presented. Next, the general benefits of the transciscipliniary model and the rationale for its use in the field of emotional disturbance is discussed. The function of the various roles of the team members as well as a proposed transdisciplinary team composition is provided. Lastly, the principles of the transdisciplinary process will be illustrated by the use of a hypothetical case study.

Transdisciplinary Evolution: Model Comparisons

The transdisciplinary approach is an outgrowth of the team process applied to working with severely and profoundly retarded and orthopedically and health impaired handicapped children (Hart, 1977; Haynes, 1976; McCormick & Goldman, 1979). Early team approaches with special education populations utilized either a multidisciplinary or interdisciplinary model to guide their provision of services to serve the "whole child". Professionals working with this population recognized that the needs of these children were so great that coordinated input from professionals in many disciplines was needed to ensure maximum therapeutic programming in both home and school environments. Information that hereto-

fore was the sole property of professionals was transmitted to parents who carried out treatment approaches at home, thereby increasing the probability of generalization of treatment gains. This approach marked the birth of the transdisciplinary model (Hart, 1977; Haynes, 1976).

Historically, the medical treatment model, which is multidisciplinary, was the primary service delivery model for children of all handicapping conditions. With the legislative mandate guaranteeing public school education, treatment teams regularly included a special educator and the importance of special education toward the habilitative efforts of special children was recognized. However, the multidisciplinary model has been criticized because professionals limited their multidisciplinary participation to the assessment/diagnostic and individual education play development phases, with little or no involvement during implementation and evaluation phases. Under this model it is possible that program procedures are derived from an analysis of separate discipline reports by one team member without a group consensus because team meetings are considered optional. The dangers in this process are that important data gathered from separate disciplines are to be synthesized by a designated team member. This team member has the responsibility of compiling an integrated report. Depending on the background or expertise of this individual, important contributions that offer specific program recommendations may be overlooked due to either bias or lack of knowledge of a particular discipline (Hart, 1977).

To obviate some of these problems, the interdisciplinary model evolved which required team members to discuss their individual findings and arrive at a group consensus with respect to specific program recommendations. Though both models include provisions for compiling information into a composite report and sharing it with significant others, neither model addresses the important components of the service delivery system post-IEP development (i.e., program implementation). All too often the burden of implementing the "ideal" educational plan falls squarely on the shoulders of the educator who may lack the necessary authority and expertise to fully activate the plan. Moreover, modifications and review of the program are often lacking as many team members see their involvement completed at the end of the program development phase.

The transdisciplinary model differs from these models by placing a much greater emphasis on the team process throughout all phases of the delivery system (Hart, 1977; Kabler & Carlton, 1982; McCormick & Goldman, 1979; Sirvis, 1978). Though similar to previous models during the initial assessment phase in that members from their respective disciplines are responsible for their area, it differs considerably in that assessments are not as rigidly defined and joint evaluations are a possibility during both preevaluation and evaluation stages. Similar to the interdisciplinary approach, the IEP is derived by group concensus. The primary differences among the models are clearly seen in the program implementation phase. Here one or possibly two members are responsible for providing direct services to the student working cooperatively with the team. Throughout the delivery of services there is constant communication, feedback, and self-correction. If the special educator was deemed the primary direct service provider, s/he would be enveloped in a supportive environment that promotes learning as rigid discipline boundaries are broken as a result of diverse collaboration. "Each team member assumes some of the responsibilities of the other team members. Thus, one person represents more than one discipline and is able to deliver services based on multiple disciplines" (Hart, 1977, p. 393).

General Benefits of the Transdisciplinary Model

The advantages of the transdisciplinary model in the assessment, planning, and

program implementation phases of service delivery are discussed below.

Several advantages are apparent in the assessment phase. The transdisciplinary model requires teacher-based assessments which would be more ecologically valid by reducing reliance on data from isolated and infrequent clinic visits and replacing this with on-going assessment under current, up-to-the-minute conditions (Baine & Sobsey, 1983). Ysseldyke and Algozzine (1982) have stated: "Assessment is simply a behavior sampling process and as such, it should be used only when one wants to sample behaviors to enable making specific decisions more easily" (p. 259). With this definition, conducting assessments under current environmental conditions will increase the timeliness of decision making with respect to treatment effectiveness.

Continual evaluation of the treatment plan also will allow the transdisciplinary team the opportunity to modify approaches/strategies to promote maximum treatment gains in the shortest period of time.

Another advantage of the transdisciplinary model during the assessment phase is the increased time for specialists to focus on consultation with larger numbers of students (Baine & Sobsey, 1983). The specialists will require less time for assessment because teachers will be collecting more of the data.

Perhaps most important is the increased ecological validity of treatment recommendations and placement decisions due to participation from the diverse transdisciplinary team members. Kabler and Carlton (1982) state:

> The transdisciplinary model encourages comprehensive involvement on behalf of designated team members. This breadth in the dissemination of services ensures that each team member has the opportunity to fully participate in the various levels of team activities and is thus recognized as essential in order to achieve the most efficient functioning of all team members. Guaranteeing the probability of pervasive involvement should result in more appropriate evaluations and placement decisions. (p. 89)

This will lead to what Kabler and Carlton have termed "mutual understanding of team members' roles and mutual support for the team's decisions" (p. 90). This will also lead to an increase in the exchange of ideas, and participation is likely to reduce professional myopia and further increase the benefits of cooperative involvement and learning between the special educator and other professionals.

Kabler and Carlton also address the advantages of the transdisciplinary model over the multidisciplinary and interdisciplinary models in the implementation phase of service delivery. In the program implementation phase of service delivery, the benefits of the transdisciplinary model are the most salient because assessment and treatment are concurrent. During this phase, a child's progress will be faster as a result of daily practice in his/her natural environment with close attention being given to monitoring treatment effectiveness resulting in timely changes.

One very important advantage resulting from the employment of the transdisciplinary model is the increase in shared ideas due to the professional exchanges/viewpoints that occur as a result of collaboration throughout the entire phase of assessment-diagnosis, intervention, and evaluation. An illustration of this as applied to a hypothetical student is found in Figure 1.

In this case, the student is evaluated by six various members of the treatment team. Applying a factorial equation to this process of exchange under the multidisciplinary and interdisciplinary models could yield an exchange rate as low as six or seven viewpoints per student. Moreover, the core team will not be involved in subsequent implementation, monitoring, or evaluation phases, thus curtailing further exchanges. When applied to a transdisciplinary model, a factorial equation

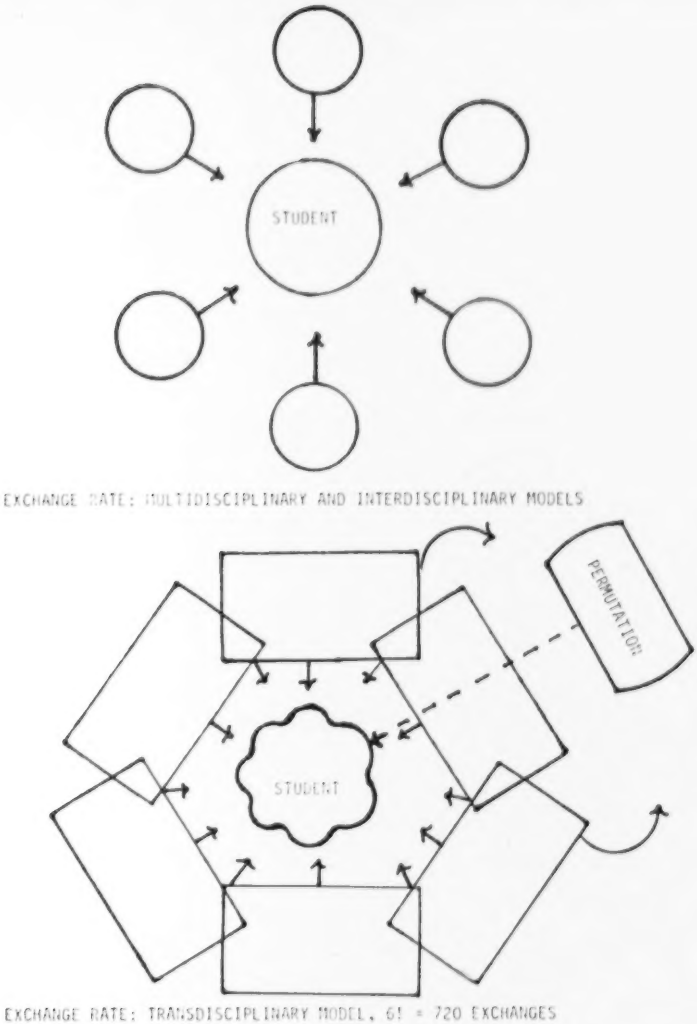

Figure 1. *Exchange rates for service delivery models applied to a hypothetical student*

(61) yields a product of 720 exchanges pertinent to the same student. This coefficient represents all possible combinations and permutations and is thus egregiously large from a pragmatic perspective. However, it does serve to highlight the possibilities of fervent professional exchanges that could result. Most importantly, the postassessment process under the transdisciplinary model includes both the implementation and follow-up phases which will ultimately

result in more comprehensive and closely monitored activities for the student, thus potentially increasing the overall treatment effectiveness.

Rationale for the Use of the Transdisciplinary Model for the Field of Emotional Disturbance

One of the conundrums facing the field of emotional disturbance is the lack of consensus regarding theoretical and philosophical orientations. As Paul (1985) states, "Perhaps in no other area of special education are the philosophical roots so exposed and so requiring attention" (p. 149). The psychodynamic, behavioral, and ecological perspectives are the primary perspectives shaping the study of emotional disturbance (Apter & Conoley, 1984; Clarizio & McCoy, 1983; Coleman, 1984; Paul & Epanchin, 1982). The transdisciplinary model is closely akin to the ecological perspective that stresses the goodness of "fit" between the student and his ecosystem. Figure 1 illustrates how the rate of professional/parent exchange is far greater under this model thus fostering greater analysis of the complex set of interactions that impinge on the student's fit in his ecosystem. By increasing the rate of exchange and conducting ecologically valid assessments, the overall focus on the child's natural environment is given greater attention.

In practical terms the team becomes the primary agent, so to speak, for the delivery of services. With teamwork extending throughout all phases of service delivery, some of the typical problems which are currently apparent under the multidisciplinary model can be avoided. For example, in residential treatment centers the case manager might be the psychotherapist who will ultimately have the responsibility of decision making during critical postassessment/diagnosis phases. Depending on a number of factors, the case manager might make a key placement recommendation such as moving a student to a public school setting without ever having worked in concert with the special educator or other team members. Such a situation is most likely the result of the absence of team involvement during the implementation and follow-up phases. The transdisciplinary model promotes democratic team decision making. Moreover, it may be common practice for psychotherapists to conduct formal therapy in the administration/office complex without ever having acquired a firm knowledge of the child's cottage environment, his true ecosystem. Employing a democratic decision-making transdisciplinary model will obviate many of these problems by ensuring constant input from licensed and nonlicensed personnel during all phases of the service delivery. Doing so will ensure constant input from the child care staff whose impact on the child's life has been eloquently described elsewhere (Treischman, Whittaker, & Brendtro, 1969).

Application of a transdisciplinary approach in the public school setting is also important. Special educators of emotionally disturbed children experience high rates of stress (Lawrenson & McKinnon, 1982; Zabel, Boomer, & King, 1984). Of particular interest is the finding that teachers of emotionally disturbed students listed lack of administrative support as their primary reason for job dissatisfactions, and difficulties with administration as the primary reason for leaving the job (Lawrenson & McKinnon, 1982). The sense of having to go it alone without support on a day-to-day basis is a real factor in a special educator's mental health. Perhaps the application of the transdisciplinary model will help deter this phenomenon as on-going participation on the part of all team members will generate more meaningful team recommendations. Teachers will not be expected to apply unrealistic interventions in a vacuum.

Fisher, Burd, and Kerbeshian (1985) have recommended that transdisciplinary team members have mastery of their own discipline, a working knowledge of other disciplines, and a common language to conduct the team process. McCormick

and Goldman (1979) have recommended that a practical understanding of applied behavior analysis serve as a common denominator for team communication and problem solving, as applied behavior analysis is "independent of theoretical and discipline orientation" (p. 160). Adoption of a common theoretically free language should facilitate fertilization of ideas across professions. In reference to the education of emotionally disturbed students, Paul (1985) has stated, "We are moving beyond our debate over which theoretical orientation is appropriate toward some acceptance of the utility of different perspectives" (p. 148). The transdisciplinary model relies on this kind of mutual respect across disciplines. In practice, members of a transdisciplinary team may require additional training in a common language as well as common practices of the other team members. Perhaps workshops on specific topics such as adolescent runaways, suicides, or affective disorders would provide a vehicle for round table discussion which may further foster a mutual understanding across fields.

Moreover, Paul (1985) has recently called attention to several challenges facing the field of educating emotionally disturbed children. In particular, he outlined three components of philosophical issues that remain fertile. These are definitions, classifications, and ethics. The transdisciplinary model may provide answers to these challenges. The field of emotional disturbance has the immense challenge of developing classifications that will eventually lead to practice. Our special education brethren in learning disabilities have yet to shed the classification pox that has plagued them since its inception and they are no closer to remedying this situation today than they were 20 years ago (Sinclair & Alexson, 1986).

Can a similar conundrum be avoided or at the very least short circuited in the field of educating emotionally disturbed children? Yes, but only if current classification and definitional constructs which do little to guide educational practices and are so obfuscating as to place our current body of research at an impasse are abandoned. Lakin (1983) has offered an approach to this dilemma: "We simply need to theorize less and collect more data" (p. 136). This offering is very much in line with a transdisciplinary perspective. Researchers under this model would become more adept at describing their subjects, employing necessary methodological practices (e.g., control groups), and would eliminate current definitions/labels in favor of the construct developmental social competence.

A transdisciplinary approach would encourage us to look closely at Rutter's (1981) work in psychiatry. Rutter contends that a developmental perspective is in a sense the truest form of ecologically valid constructs. "Development thus encompasses not only the roots of behavior in prior maturation, in physical influences (both internal and external), and in the residues of earlier experiences, but also the modulations of the behavior by the circumstances of the present" (p. 1). A developmental perspective focusing on a child's social and personal competence will obviate the need for labels such as emotionally disturbed and in so doing, provide statistical norms of normality that are multidimensional in scope and that are applicable to children and adolescents.

Lastly, a transdisciplinary approach should do much in the way of defining the foundation of ethics. Paul (1985) stated: "We have yet to develop a clear foundation of ethics from which to evaluate practice and the propriety of intervention" (p. 149). The transdisciplinary model draws on and utilized various professionals' expertise throughout all phases of treatment. Thus there exists an interplay of professional practice regulated by a system of checks and balances derived from varied professions.

Additionally, parental input is evident in this model. Parent input will ensure the team's constant reappraisal as to the propriety of their interventions by serving as an ecosystem/cultural backdrop. Treatment interventions will undergo fair apprais-

al under the transdisciplinary model as it does not prescribe to one "right" conceptual model to guide interventions. Having a strong emphasis on evaluation encourages the empirical free marketplace to judge an intervention by its effectiveness rather than its conceptual roots. An examination of the roles of transdisciplinary team members, a proposed ED team core membership, and a hypothetical case study will illustrate the application of these benefits.

Transdisciplinary Team Roles

The transdisciplinary model does not advocate a prescribed number and type of professional participants as part of the core team. Rather, the composition is determined by the type of student and his idiosyncratic needs. Kabler and Carlton (1982) advocate the use of a multidisciplinary core team operating within a transdisciplinary paradigm. In their generic model they propose that three of the following six members be present at the preevaluation stage: referring source, educational specialist, school psychologist, communication specialist, medical specialist, and building administrator. Again, additional adjunct and core members may be added as consensus is reached with respect to a student's exceptional needs. At this point, parents are notified and asked to participate as a team member with clearly defined rights. Throughout the remaining postevaluation stages, most notably the implementation stage, the core team continues to be actively involved and the number of team members may change as needs change.

Kabler and Carlton (1982) recommend that each team member's role include sharing of responsibilities with other disciplines to encourage cross discipline communication. "Task overlap is encouraged and planned rather than viewed as simple duplication of effort" (p. 92). In this respect, role diffusion is planned for and encouraged leading to professional growth wherein
"professionals have the opportunity to become both generalists and specialists (McCormick & Goldman, 1979, p. 155). Perhaps most important is the fact that members functioning under a transdisciplinary approach are subject to much greater individual accountability. Even though a designated team member is responsible for implementing the plan while working with others in consultation, all members share greater responsibility under this model than previous models because involvement continues throughout the entire service delivery process. "Throughout the endeavor, then, each team member remains accountable for what he teaches, how well the individual person responsible for the program facilitation has learned, and for the benefits to the client" (Hart, 1977, p. 393).

Proposed Core Transdisciplinary Team in Emotional Disturbance

An application of a transdisciplinary paradigm to the field of emotional disturbance is a logical alternative to the multidisciplinary and the interdisciplinary approaches. Similar to the professionals working with severely and profoundly handicapped children who mandated intensive collaborative expertise, the professionals working with emotionally disturbed students have needs which are no less intense.

The composition of the transdisciplinary team in emotional disturbance should be determined by the needs of the child and thus remain dynamic, not static, in composition. The generic core team model proposed by Kabler and Carlton (1982) is worthy of consideration as a base from which to build a transdisciplinary ED team. Additionally, consideration for core team inclusion should be given to professionals specifically trained in the diagnosis and treatment of psychological disturbances in children. Such persons as clinical psychologists, psychiatrists, psychiatrically trained social workers/nurses, and psychotherapists are a few of

the possibilities. Also, a social worker trained in family therapy and casework should be considered as this person can serve as a constant linkage between home and public school or residential setting. In addition to the special educator's involvement, regular educators need constant input to discuss progress in mainstreamed classrooms or to prepare for the eventual reintegration of the student in a self-contained special education setting. If a child receives his educational programming in a residential setting, this linkage with public school personnel is absolutely necessary to promote clear communication of his education plan to maximize the child's opportunity for a normalized education.

The role of chairperson of the transdisciplinary team should be rotated so as to share responsibilities and encourage role diffusion which would enhance understanding of the complexities associated with the various team member roles.

Hypothetical ED Case Example: A Transdisciplinary Application

The ED transdisciplinary team in practice is best illustrated by a hypothetical example. John, a 12-year-old, is currently having problems in his regular education classroom. His family recently moved to the district and though he has no previous history of special education placement, he has received reading assistance services and is described as a very difficult child to manage. The referral source, his regular education teacher, feels that John exhibits very high rates of disruptive behavior in the classroom, has inadequate social skills, and has no friends that are age appropriate. Additionally, she feels that he is not motivated to complete assignments and is falling considerably behind his peers academically. From the onset of this referral, the core team would implement a plan of action to determine if a handicapping condition of emotional disturbance exists. A review of the student's previous educational records, on-site observation, and discussion and analysis amongst the core team would determine if prereferral intervention were in order or if further data were needed to make a determination of a handicapping condition.

> The purpose of this meeting should not be to plan the educational intervention but rather to share information and to determine if all necessary data are available for the formal meeting. The data discussed at this meeting should be summarized — including disagreements and discrepancies — and discussed in their totality with the parents and, when appropriate, the child. (Sirvis, 1978, p. 82)

Based on the preevaluation conference, a prereferral intervention plan developed in conjunction with the core team could have been initiated by the teacher. In this example, the prereferral intervention plan failed to achieve the expected results within the specified time frame, thus resulting in a call for a formal evaluation. John's parents became actively involved with the team after sharing these results. They contribute to the core team by honestly discussing problems and possible interventions as well as granting legal consent for a formal evaluation. The team's analysis of parent input and preevaluation data will determine the scope and involvement of various core or adjunct team members. The likelihood for collaborative assessment is high during this stage.

Once assessment data are compiled, the development of the IEP becomes a total collaborative effort between the parents and team. Clearly defined roles pinpoint the principal members responsible for providing direct services once the plan is approved. The rest of the team members work in close consultation with the direct service providers and in essence provide support, feedback, and correction. Each member, either a direct service provider or consultant, is accountable for his/her input throughout all phases.

An example of cross disciplinary collaboration can be seen in a situation in

which the educator is designated the primary service agent to conduct a social skills training program. In such a case, the educator might work in direct conjunction with the school psychologist, school counselor, clinical psychologist, and others, conducting the training sessions directly in the classroom or other ecologically valid area (such as the gymnasium, library, school grounds, or lunchroom). Clinically proven social skills training programs such as those embodied in the skillstreaming approach (McGinnis, Goldstein, Sprafkin, & Gershaw, 1984) often require two adults to conduct the sessions. This program would be an ideal vehicle to meld the discipline strengths of instructional planning that the educator possesses with the clinically oriented skills (e.g., modeling, behavior rehearsal, feedback, prompting) of the psychologist/counselor.

Similarly, a social worker assisting John's parents in the development of parent management skills could work in collaboration with the educator to share insights about his home environment/neighborhood that can enhance planful approaches to dealing with his behavior in the classroom. Conversely, the educator and social worker might coordinate efforts to develop a home/school based management program to maximize treatment gains in both settings. Also, if John needed specialized reading instruction, the educational specialist would design instruction to be carried out in John's classroom. If the educator needed assistance, the educational specialist would consult (e.g., demonstrate, instruct, critique) directly in the classroom. In summary, collaborative efforts illustrated in this example are designed to promote integrated rather than isolated therapy (Sternat, Messina, Nietupski, Lyon, & Brown, 1977) and enhance greater professional learning though role diffusion.

SUMMARY

This article has outlined the advantages of the transdisciplinary model over multidisciplinary and interdisciplinary models and a rationale for its application to the field of emotional disturbance. Though the genesis of the transdisciplinary approach evolved from work with severely and profoundly handicapped children, recent transdisciplinary approaches have been applied to collaborative efforts with Tourette Syndrome children (Wilson, Garron, Tanner, & Klawans, 1982) and recently with learning disabilities populations (Kliebhan et al., 1986). Roger von Oech (1983) stated:

> Much of our educational system has taught us to look for the one right answer. This approach is fine for some situations, but many of us have a tendency to stop looking for alternative right answers after the first one has been found. This is unfortunate because often it is the second, or third, or tenth right answer which is what we need to solve a problem in an innovative way. (p. 26)

The transdisciplinary model deserves consideration as a viable alternative to current practices. It might offer solutions to this young service and research field of educating emotionally disturbed children.

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